

(A) LENGTH: 51 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

5

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 1865:

10 AAATGCGTA TCCTTATGTA TCAACTAAGT AATCACCAT TTCTTTCGGA T 51

(2) INFORMATION FOR SEQ ID NO: 1866:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 58 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

15

20 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 1866:

GTGTGCGGA TAATCGTCG ACATTAGCGT CTGAAGGTAT CATGAGGCAA CTGCGCAA 58

(2) INFORMATION FOR SEQ ID NO: 1867:

25

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 60 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

30

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 1867:

35 ACAGCACTG ACCAGTTTA CTACCGTCAC TCAATCACA CAGGTGGTAT CAAATCAATC 60

(2) INFORMATION FOR SEQ ID NO: 1868:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 56 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

40

45 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 1868:

CAATCTCTTA CCATTTATCT CAGCTGGTGA AAACGGTCCA TTACACTTAG AATAAA 56

(2) INFORMATION FOR SEQ ID NO: 1869:

50

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 65 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double

55

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 1869:

5 GCTATAGACT AGAGGTACAG CAAATTCATG TGTACAGTGA TTAGAAGGCG ATGAGCAAAA 60
GTAAT 65

(2) INFORMATION FOR SEQ ID NO: 1870:

10 (i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 173 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 1870:

20 GCTACTGGCG GGGGATAGTA ACACCCAATG TTACAGTAT ATACGTACGG CTTCCTGATA 60
AAAAGATGAA GCCTTTACAA GTAGAGAGCG TAAGAAGTG ATCATCTAAA TGGTAAGGT 120
AGACTATCCC ATGCCATTGT GGGCGGTTGC ATAGGTACCA CGGCACATAG CG 173

(2) INFORMATION FOR SEQ ID NO: 1871:

25 (i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 104 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 1871:

35 GCTGTGGGAT TGTCTTTGG CATGGGGTTA GGGAGAGCGT TTCTAAGGGG CGTTTGAAAG 60
CCAATGATCC GTAAAAGGAC CATTTGTGGA AGCnGCCTTA AGAA 104

(2) INFORMATION FOR SEQ ID NO: 1872:

40 (i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 64 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 1872:

50 CCATTATCTC AAGAGGTTCT AGTAAGGGA TGGCATTGTC TTCTTATGAA TTGACCAGA 60
ATAA 64

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 377 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 1873:

GACAACTTAT TGTTCCCTTA CCATACTGTT GTCCGGTTTG ACAAACGGC GTTCCACAAT 60
 CCATACATCG TGCACCTTGG ATAGAGGCAT CTTCTTTAGT AAATCGTTGT TGATATGCTT 120
 TATGATGCTT CAAACGGTCT ACCAGTGATA ATTACCTTAA GTACTGTTTG TCATACTTCA 180
 TAAATCCTTT AAATTCACCC ATCGTATCTC CCCCTTTCTT TAATACACAA CGGCTGGTTT 240
 ATGTTTAGCA TCGATTGTTT TGACTGTnCA TCGTAAAAATG CAGCTAACAT CGCTTCATCT 300
 TCCATTGTCA TGTGAAGATT TTGTGGCAAA nGGAATTTTT TGCATCAATG AATnGGTGAA 360
 CCTTGGGGG TGACCTT 377

(2) INFORMATION FOR SEQ ID NO: 1874:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 78 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 1874:

ATTATCTGAA TACGCAGCAG TTGCAGCACT TGATGGATCA GCAGTATTTA AAAGAGGTTA 60
 ACACATTACC CAATAGTG 78

(2) INFORMATION FOR SEQ ID NO: 1875:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 256 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 1875:

CTAAAAGAAG TTAAGAGTGT TGATGGTAGA ATTATATTAT TTATTGATGA AATgCCATAT 60
 GCTTGATAGT GsTGGTAAAA CAGATGGTGC CATGGATGCa GGCAACATGC TAAACCAAT 120
 GTTAGCACGA GGAGAGTTAC ATTGTATTGG TGCAACAAC TTAATGAAT ATCGAGAATA 180

TGTGAAGAT ACAATT

256

(2) INFORMATION FOR SEQ ID NO: 1876:

5

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 286 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: double
- (D) TOPOLOGY: linear

10

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 1876:

15

AGCGCGAAAT TGAGCAAGCG GAACATGCGA CTGATGAAGA AAAACAAGTT GCTTTAAATC	60
AATTAGCGAA TAATGAAAAA CGTGCATTAC AAAACATCGA TCAAGCAATA GCATAATAATG	120
ATGTAACGT GTTGAACAA ATGGCATTGC TACACTAAAA GGTGTACAAC CTCATATTGT	180
AATTAAGCCT GAAGCACAAC AAGCAATaAA AGCAAGTGCA GAAAATCAAG TAGAATCAAT	240
AAAAGATACA CCACATGCAA CAGTTGATGA ATTAGATGAA GCGAAT	286

25

(2) INFORMATION FOR SEQ ID NO: 1877:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 74 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: double
- (D) TOPOLOGY: linear

30

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 1877:

35

ACTTCCAAC ATGATAAAGA CAGACTACTT CACAGGTTTA AGGAAGCAA CCACATTAGC	60
GGGATTACCC CTAT	74

40

(2) INFORMATION FOR SEQ ID NO: 1878:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 52 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: double
- (D) TOPOLOGY: linear

45

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 1878:

50

TTTCATTAAAG TTCAAAAAAT CTCAATAACT TTAAGGATTG GTCCGCATAT TA	52
--	----

(2) INFORMATION FOR SEQ ID NO: 1879:

55

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 60 base pairs

(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

5

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 1879:

ATACCCCTGA GATTAAATTAC TTGTCTTTT TTTAGAACA CATCTCTGG CTTGTTTGG 60

10

(2) INFORMATION FOR SEQ ID NO: 1880:

(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 60 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

15

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 1880:

20

AATATCATTATAATATCAT TGATGCAAGT CCTATGTGC ACAACTGGGG TGATTGCCTT 60

(2) INFORMATION FOR SEQ ID NO: 1881:

25

(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 56 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

30

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 1881:

35

ACAATGGCAC ATGGACTTAT GCCTGGGGTG TCCTGTTCTG CGCAGCATCA AAATGA 56

(2) INFORMATION FOR SEQ ID NO: 1882:

40

(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 121 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

45

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 1882:

TGCAAGCAT TGGCACATGG CCAGTCAGTT TTACAACCTC GTGACTGGGA AAACCCGAGA 60

50

nGCGACGTTG TAAACGACG GCCAGTGCCA AGCTTGCACT CCTGCACTCG ACTCTAGAGG 120

A 121

(2) INFORMATION FOR SEQ ID NO: 1883:

55

(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 56 base pairs

(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

5

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 1883:

ACATTTAATG TATAACCAATG TTCAACATTT CCGATTTAGT GGCAGCAGTT GCAGGA

56

10

(2) INFORMATION FOR SEQ ID NO: 1884:

(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 52 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

15

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 1884:

20

TGCATCCATT TGATTGAATT TTATGTTTGT ACCAAAGCCG GTTGCAATGT AC

52

(2) INFORMATION FOR SEQ ID NO: 1885:

25

(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 51 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

30

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 1885:

TGAAAAGTGG TGAATGGTG TTAAGAGTTG GTGGGTAATT TTAGAGAAGA G

35

51

(2) INFORMATION FOR SEQ ID NO: 1886:

(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 95 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

40

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 1886:

45

TACACGAACC ATACTCACCA GGTTCGTCG TCATGAGGCG ATATTTTTTG TCATTTTATA

60

TACATTATC CAAATTCATC TTTTAAATGT TGAGT

50

95

(2) INFORMATION FOR SEQ ID NO: 1887:

(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 65 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double

55

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 1887:

GCTACCAAAG GCGTTTTACC TATTGCTAGT CACTGCAAGT GGCTTAGCTA TGCAGATCAA 60
 CTGGT 65

(2) INFORMATION FOR SEQ ID NO: 1888:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 60 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 1888:

GTGGGACCAA CTGGCCGGTG ACGGTGGTAA AGGTGCTTCA GTCGTATTGA AGTGGGATGA 60

(2) INFORMATION FOR SEQ ID NO: 1889:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 57 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 1889:

TGTTGGAGAA ACAGTTAACG AGGTTTAATG TTAATAAAGC AACGTATCAT GGGTATA 57

(2) INFORMATION FOR SEQ ID NO: 1890:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 64 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 1890:

TGGGATCTGC TTGCAAATAC AAAAACTTT CTGGATTTTA TTACAATTGC AATATAATCA 60
 AACA 64

(2) INFORMATION FOR SEQ ID NO: 1891:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 59 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 1891:

GGCATCCACT CAGATAAAAT AAAGATGTCA AAAAGGCAAA GATGGTGCTA AAAAAACAA 59

(2) INFORMATION FOR SEQ ID NO: 1892:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 54 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: double

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 1892:

GGTATCTCAA CGATCCTTTA GGTAAATTCG GAAATTCTCA CACGTGAGTT AGCA 54

(2) INFORMATION FOR SEQ ID NO: 1893:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 52 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: double

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 1893:

TTGTCTTGGC AATGCAGAG CAACAGAAGT TTAAAGTGCT TGCTGATCAT AT 52

(2) INFORMATION FOR SEQ ID NO: 1894:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 79 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: double

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 1894:

TAAACCTATA CCCTGTAAA AGAAAAATCG TGGATCGAAA GAACATGTAT GTGGCATTTA 60

TGATTGATGC TCAAGCAGA 79

(2) INFORMATION FOR SEQ ID NO: 1895:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 377 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: double

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 1895:

TTATAAAGGA GAGAAATCCT TAATTATGAA TAAAGCATCA TTGATAAAA AAGTTAAAAA 60
 5 GCAATTATGG TTTTGAACA AGAAGGAGAA ACAAGCATTG GATCAACGAT TGTCTTCTAT 120
 ATCTGATGAT GACAGCGITA ACTTAAATAA GCCTGTATACC TTGCTAATG CTTACTTAAG 180
 ACAAATGTA TTTTGAATA AAGAAACAAA AAGTTATAGT ATGTTTGTTA CATTAGTAGT 240
 10 GATGATGTTT GCTTATGTTG CTTTATTAGG TTTGTTTITA TTGGGGCTAA TTACAAGTCT 300
 ATCTGGCGTA CAATTTTTTCG TTAGTCCTAA GGTAGATTTA TCTACNACTG TTGTTATTTT 360
 15 AACAAATNATT GGAGCGA 377

(2) INFORMATION FOR SEQ ID NO: 1895:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 58 base pairs
 20 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 1896:

TTAGGATCCG TCTTTGCCGC AGCGTGGGTG TTCCGCGAGC GCTTCTTAGA GGTTTTGC 58

(2) INFORMATION FOR SEQ ID NO: 1897:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 445 base pairs
 30 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 35 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 1897:

ATCGCTCAAA CGAAATGGA AAATGCATCT ATTACTTCAT TAAGCCGTTT ACCAGACGTT 60
 ATATTAGCAT TGAAAAGTGG AAAGGTTGAA GGTGCTGTAG TTGAAAAACC TGTAGCAGAA 120
 GCATATTGTA AACAAATCC TAAATTAGGA ATTTCCAATG TGAAATTGTA TGAAGAAGAA 180
 45 AAAGATACAG TGATAGCAGT GCCAAAAGAT TCACCAAAAT TATTGTGACA AATTAATAAA 240
 ACGATTAAGG AGGTAAAGA TAAAGGATTA ATCGATAAAT ATATGACTAA TGCTGCAAAAT 300
 50 GCGATGAATG ATGACAGTGG TTTTATTCTT AAGTATGGTA GTTTTTTCTT GAAAGGAATT 360
 AAGATTACAA TAITAATTC ACITATCGGT GTTGCAATTG GTTCTATTTT AGGTGCATTC 420
 GTTGCCTTAA TGAAATTAAG TAAAA 445

55

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 101 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 1898:

ACCTTTTCAA TGTTGCTTTG ATATAAATTC ACAAGTTGA CTTTtTAATT CTTCaATAGA 60
 TTCTCTACTG CGATAGCTGA ATTGCCATCT TTTCTACTAC T 101

(2) INFORMATION FOR SEQ ID NO: 1899:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 75 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 1899:

TGCCCTGGAT GCCTTTAACT TGATTCATGA CCGTGGGTTT TATTCAATT TAGATGAGCT 60
 ACCTTCAAGA CCTTC 75

(2) INFORMATION FOR SEQ ID NO: 1900:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 54 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 1900:

AGCAATACGG AACTGATGAA CGGAATTGTA ATACGAGAAT ATGAAGCATC AACG 54

(2) INFORMATION FOR SEQ ID NO: 1901:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 60 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 1901:

AGTACCTGAG TATCGCAGAC CGGCTTCAGG TCGTAGAATT TCTATACGTG GAGCTAGAAG 60

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 51 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 1902:
 GTCTAACTAC AGCATGCCGG CTtATTGTG CACTTCTCA ATATITCCAT A

(2) INFORMATION FOR SEQ ID NO: 1903:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 50 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 1903:
 GGATtnAAAC GTGCATTAAc GCCTGtnTtA AATAGTTATG GTTTAAGTAG

(2) INFORMATION FOR SEQ ID NO: 1904:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 53 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 1904:
 ATCGTATTTA TTTcAGCGAG TAGCGGTAGC CTTCAATACA CAAAGATTTT ACC

(2) INFORMATION FOR SEQ ID NO: 1905:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 50 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 1905:
 ATAAGACGCT AGATCTGGTC AATTtATTTC CGATTTTTTC AACACTATTC

(2) INFORMATION FOR SEQ ID NO: 1906:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 51 base pairs

(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

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(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 1906:

TTCATCTGAA TCGTCGGCTT TCGCGATTAC TTCTTCGTCA GGGTTGCTAT C

51

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(2) INFORMATION FOR SEQ ID NO: 1907:

(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 55 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

15

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 1907:

20

CAATTGCTAA TAATCCCTTT AAGTCATTA TGATTGATC TTCGTAATG TTGAA

55

(2) INFORMATION FOR SEQ ID NO: 1908:

25

(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 53 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

30

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 1908:

35

TGCCCCAACA GACATGACTT AAATTTCAAT ATCTCTTTG ACTGCATCGA TAT

53

(2) INFORMATION FOR SEQ ID NO: 1909:

40

(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 94 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

45

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 1909:

TGAATTTCTA TACAATTATG GGGAGGGTA TTGGTGAATT GGAATGGGCT CCTAAGTTTA

60

CAAGCCCCCA TTCGATGGCC GTTAAAGTTT TTAA

94

50

(2) INFORMATION FOR SEQ ID NO: 1910:

55

(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 66 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 1910:

5 AACATGATCG TGGGGGATG TTATGTTTGT TCATATATTT AGGAAGTCGT TTGTAGTTAT 60
TGTTTG 66

(2) INFORMATION FOR SEQ ID NO: 1911:

10 (i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 55 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear
15

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 1911:

20 ATCTTCGCTC CACTTACTGC AATAAGGATT TCGGCAATC CTAACCGTT TTTCA 55

(2) INFORMATION FOR SEQ ID NO: 1912:

(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 59 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear
25

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 1912:

30 AACAACTCGTA ACGATACAAC GCAATCTTCG AAAAATAATG CAAGTGCAGA TTCCGAAA 59

(2) INFORMATION FOR SEQ ID NO: 1913:

35 (i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 51 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear
40

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 1913:

45 ACACCACACA CACACACACA ACACCCACACA CAACACACAC AACACACAA A 51

(2) INFORMATION FOR SEQ ID NO: 1914:

(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 111 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear
50
55

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 1914:

5 TGTTCAGACT TGGTCGACCT GGCAAGCGCT TCGCGCACGT TCTGCAGCnT CTCACCTATT 60
 GGTATCGCGA TCGCAGTTA AGAAATTCG GAGTTCGTGT CACCTTATGT T 111

(2) INFORMATION FOR SEQ ID NO: 1915:

10 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 56 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

15 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 1915:

TGGTCGCTC TCAATCGCAT CTTCAGGTTT TACTTGGCAA AAGAGCGCGG TGCTCA 56

20 (2) INFORMATION FOR SEQ ID NO: 1916:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 62 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

25 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 1916:

30 GCCGACAGTA AAATAAAGGT ACTTGATATA ACATATAACG GAAAGCAACA GTTACTGTCA 60
 CA 62

35 (2) INFORMATION FOR SEQ ID NO: 1917:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 103 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

40 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 1917:

45 ATGATATTTA TTTGATTGAA GAGATGTTGC TTAACAAGA AGACGTACAA TTGATAnAAC 60
 GTAAAGATTA TATTCAGCAC CCTAAAGAAA ATGGTTACCG CAG 103

50 (2) INFORMATION FOR SEQ ID NO: 1918:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 60 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double

55

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 1918:

5 CAGTGTAGCG TGTGTCATGC CGTTTTACCA CAATTGAAGA CTGAGCTCTA TCCCTGTGCC 60

(2) INFORMATION FOR SEQ ID NO: 1919:

(i) SEQUENCE CHARACTERISTICS:

10 (A) LENGTH: 117 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 1919:

15 TCAAATTAAC TTCCAACAAA AACAAATGCA AGGTGAAGAA ATTGCTGAAG AAGATTTACA 60
AAAAGCGCAA GAACAAGCGC AAGCAATTGA AAAAGATGAA AACATCTCTn CATTAAT 117

(2) INFORMATION FOR SEQ ID NO: 1920:

(i) SEQUENCE CHARACTERISTICS:

20 (A) LENGTH: 400 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 1920:

30 TGCCTAATGA AACATTITAAA AATATTTTITA AATATATCTA TCAACACATC GTTCTATTAA 60
TTGGGATTGT TAGTTTTCTC AAAGGATTTT TAGGATTTTT CATGAAAAA AATGGAAGTA 120
35 ATTTATATTT TGTTCATTC CGTTTTTCAG TAGTCGTGG ATTCTTTATT GTCTTTTAT 180
TTATATGGTT TAGTTTTAAA ACAATACAAC TGCAGTGTIT TAACAATTCA AATTGGATAT 240
GGATATTCAC CTATTTAGCA ATCATCTAC TAATTGTAGG ATTTTCTAT GTATCTTTA 300
40 TTCCACAATC ATTACTTGCC TTGGACCAT ATATTCAGGT AAGCAATTGG GTATTTATTA 360
TATTTTCAIT TATAGTTATG CCTATnGGAT TACGCAITGA 400

(2) INFORMATION FOR SEQ ID NO: 1921:

45 (i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 122 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

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TCACAGTCAT CATTThATT TCGATTTICA ATAATTGTAT TTTAAITTA TCITGATATT 60
 CATTAAAGATT TATACAAGCT ATCTTTAACA TTGCCTTATC TTGATATAT TTCTTGCATT 120
 5 CG 122

(2) INFORMATION FOR SEQ ID NO: 1922:

(i) SEQUENCE CHARACTERISTICS:
 10 (A) LENGTH: 410 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

15

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 1922:

AGAAGATACC ATACACATTT aATTAGTTAC AGCATAAATC AATTTATACC CTTAATTATT 60
 20 ACATTGTTTA TAITTTAAAT TCGGGGGAGT AATTTTAAGT AATATCTTGT TGCTGCTAAT 120
 TCTATTGTTA ATAAATTGAT ATTAGATGTA GAAATTGAGT GTGAAAGTTA ATAATAGATG 180
 ATTTAGCTAG TAACATAATT AATTCAATATA TAGTCAAAAA GTTCTGTTAG ATACTGTTCT 240
 25 TGATGAATAT TCCTTGATGT TAGGTGTTAG CTATTCTAGA TGAGTTTCTT AGATGTGGAT 300
 GCCTGTCCTG ATGAAGTTAT CTATGATGTT AATATAATAC TTGATGTTGA TTCCTTAGATG 360
 TTAGTGCGAT TTCAGATGCG TGATTCTTTG TTGTTGCACT ATCTTGGTGA 410

30

(2) INFORMATION FOR SEQ ID NO: 1923:

(i) SEQUENCE CHARACTERISTICS:
 35 (A) LENGTH: 348 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

40

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 1923:

TTTCTATGGT TTATCAGGTG ATTTTACGGA AAACAGTGAA GATTATGGCG TATACCGCTT 60
 TAAACGTGGA TTTAATGTAC AAATCGAAGA ATTAATAGGG GATTCTTATA AACCATTCA 120
 45 TAAAGTGAAA TATGTGTTGT TCACAACATT GGATAAATTA CGTAAAAAAT TAAAGAAATA 180
 GATGTAAATG ATGTTAGGGC TTATAGTnAT TGACTACTATA GGCTCTTTTT TATATGTTTT 240
 TTAATAAGC CTCGAATAAT GATATATTAA ATGACAAGTT TAACAAGTGA TTGCAATAAA 300
 50 TATAAATnTG AATTGCACAA CCGATTnGnA AATGATTGAG TTGAGGAA 348

55

(2) INFORMATION FOR SEQ ID NO: 1924:

(A) LENGTH: 253 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

5

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 1924:

10 AGGGCAGATT TAAGCTAACT TGGAAATGTTT TCGAGTTTTT GAGTTAGTTC TCTATCCATT 60
 TTTTCAGTTA CATGAGTATA TATGCGAATG GTTGGTTGTT CATCTACATG TCCTACCCCTT 120
 TTCATAATTG CTTTAAAGA AACATTCACT TCTACTAATA AAGTTATGTG TGTATGTCTA 180
 15 AATGTGTGCG TGGTAACTTT CTTATTCATA TTAAAGCTT TTGTACGTTT TCTAACGCA 240
 CACCGGCCAT TTC 253

(2) INFORMATION FOR SEQ ID NO: 1925:

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(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 52 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

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(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 1925:

30 GGTATAGGTG CAAGTCCTAT CTTCCGCTCC ATGTTTAAAT GATAATGCGG GA 52

(2) INFORMATION FOR SEQ ID NO: 1926:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 84 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

35

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 1926:

40 TGGTCACTGT TCTGATGCT TACGTTAGAA TGTAAGATTC CCGATTATATC AGTTATATAC 60
 TGTITGCTTC ACTTTGGAGA TCTG 84

45

(2) INFORMATION FOR SEQ ID NO: 1927:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 56 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

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CTTCTAAAT AATTCTAGTA TAGTTTTTAT TCAAAATACGC TAGGCTCAGA GCTATT 56

(2) INFORMATION FOR SEQ ID NO: 1928:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 138 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 1928:

GCAAATTGTC ATTAGACGGA GTATTATTGA GAATTTTCGG TGATATCCAC CGGCACAAGA 60
 TCGATGTTGG ACAATATCTA ATATACTGAT ACGCATTTAA ATAGAAGAAG GGAATTAGAG 120
 TTTGGTTnTG AATGCAA 138

(2) INFORMATION FOR SEQ ID NO: 1929:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 52 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 1929:

ACATCTTTAT ATGCTTCAAC ATCAAATACA CCACATATTG GTAAACAACA AA 52

(2) INFORMATION FOR SEQ ID NO: 1930:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 51 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 1930:

TTTAATGTTC ACAACACGG AATAATAATA ACTAAAGCGC CGCTAATAAA T 51

(2) INFORMATION FOR SEQ ID NO: 1931:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 400 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

ACGAAAAATA AATAATCAIT TCACCTTAT AGCCAGTATT TTTAAITAAAT ATATTTTCAT 60
 CTATTAGCGC TTCTAAAAAT CTATTTGACT TTTGAACATA CTCCTTAGCT ATATTATTAA 120
 5 CAACAGTATA GGATTCTCTCA TAAITTAGTT GATTAAATTC TGAGTCGTTC ATTAATTCAA 180
 CTAATCCITT TATTACTTTT TGTACAACTA TAATATTTT ATCAAAATCA AATTATCTT 240
 CCTTAGATAA ATTAATAhnn AAAGTCTTAA GAACATTGT AAATAGCTCT GCAACACTTA 300
 10 TAGTTTGGnC AAATTCCTTA AATTATTATTA CACAGTACTC ACACATTAGT TTTAAAAATA 360
 ATGGATTGTT GAATTCCTGA TTTAATATAG GTAACCTAGG 400

(2) INFORMATION FOR SEQ ID NO: 1932:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 100 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 1932:

ACTTGC GGAA nSACGCAACG TTTATGTACG TTGGAAGAAA AATTCAGGAC TTACGTTCAA 60
 AACTACCATA GCAATATGCA TTGAAAGATG ACAGTATGCG 100

(2) INFORMATION FOR SEQ ID NO: 1933:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 61 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 1933:

CGCTCTGCTT TAAGCGTTGG GACTTTGICA ACGGTAGTGG ATGGGAAGTG GTTCTGCTT 60
 G 61

(2) INFORMATION FOR SEQ ID NO: 1934:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 53 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 1934:

(2) INFORMATION FOR SEQ ID NO: 1935:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 56 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 1935:

ATGTAITACG GTTTAATTAA GCCACATACC AACAGATTG CATTATGGT ATCTCA 56

(2) INFORMATION FOR SEQ ID NO: 1936:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 61 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 1936:

TCGCACCAGA AACAGGGAT TGTAAAAATT GCGTAAATCC TTAATTTAT TTGTAAATAT 60
 A 61

(2) INFORMATION FOR SEQ ID NO: 1937:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 51 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 1937:

ATGAATAATC ATATTCTAA TCAAAGTAAT AGCATTATA TTGTGTTTAA A 51

(2) INFORMATION FOR SEQ ID NO: 1938:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 56 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 1938:

TTGCTGAAGA TAGAGGCTTC ATGAAGGTGG AGAAGTTAGC TGATTCTGG AACAGG 56

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 51 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 1939:

ATCTCAATGT ATTCTCTAG TGTAAGTTCT TCATAAATAA CCGGTGATTC C

51

(2) INFORMATION FOR SEQ ID NO: 1940:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 318 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 1940:

CTCAGGTCGA CTCAGAGGA TCCCCTGTTA AATAAACTT CTTAAGCACA TACTTATTTC
 ACTATGCCCTT TTACGTTCCC CTTATACTTT TCTCACATCT TTCTCTTAGA CTACTCCCTT
 ATACGCCCGC CTCAATATCT TTAATCATTT CATCTACAGT TATTTTCGCA CTCGTTAAGA
 CAATAGGAAC GCCTGGCACC TGGATGCGTA CTTGCACCTG CAAAAATATAW ATCTTTATAA
 TCTCGGATA CATTYGTGG ACGATAATAA TTACTTTGCG CTAAAGTTGG GCATTAAACC
 GAATGCCGAA CCAAAATTC

60

120

180

240

300

318

(2) INFORMATION FOR SEQ ID NO: 1941:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 57 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 1941:

CCGGGAAAAA TTTTGAATT AAGTGGAAAA AAAATCCCCT TAAAAATCCC CTGGCCA

57

(2) INFORMATION FOR SEQ ID NO: 1942:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 378 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(x1) SEQUENCE DESCRIPTION: SEQ ID NO: 1942:

5 TGTTCTCTT TTGAATCTGT TTTATTCGTT TGTTCTCTT TTTTCGTTC ATCTTTCATA 60
 TTTCCACATC CCCCAATAAA AATGATTAAA AGTAATACAC TCATGTACAA AGCAATTTTT 120
 TTTATATACT CCATCATTTT ACATCTCTCT GTTTTAATTT TATAAACATT TGAATATTTT 180
 10 ATACAACCTTA TTAATAATAGT GATTATTCAA CTTTATGTT ATCAACAAAA ACTAATTAT 240
 TCAATTTAAT ACATGTAATT CATTTTAACT TTATTATTAA ATGTTCTAAC GTATTTTTTT 300
 ATATTAGTAA TTATATTTAT TTATCCTCGC TTGGAATAAA GTAGATACTA TCTGTGAAGT 360
 15 AnATATTTTC TGCCTTGN 378

(2) INFORMATION FOR SEQ ID NO: 1943:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 394 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(x1) SEQUENCE DESCRIPTION: SEQ ID NO: 1943:

AAGAAGAAGT CAAATTCAG CTAAGTAAAA GCTCGAGTTA TAAAAAGTC TAAATTGATT 60
 30 CAACAGGAGT AGAAAAGGAA ATTAGTCTTG CATATTTTAG AAAATGAATA AAAACAGTTA 120
 CTATATGCAA CTCAGAATT AAATATTATT TAAGCCACAT ACCTATTAGA GTACAAAAATA 180
 TACAAGTTGT ACTTATATCT AGGTATGTGA CTTTGTATT TAAGCGTAAA GTAAAAGTTT 240
 35 TTATGTTGT ATTAGTTCTA AATTATTTTG CACTTGGATG ACACGTATTT TTGAGTTTAA 300
 GTGGTGACTC AAGTTCAATA AAATAAATAT CAGATAGGAT AATTGAAATA TATATGAAA 360
 40 GGGTTATCTC CAAAATHATC TCCATATTAT AAGG 394

(2) INFORMATION FOR SEQ ID NO: 1944:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 52 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(x1) SEQUENCE DESCRIPTION: SEQ ID NO: 1944:

TATTCGTGAT GACGATTGTC GGTGACATGA AGTTCTATTT GCTGGCACTG AT 52

(2) INFORMATION FOR SEQ ID NO: 1945:

(A) LENGTH: 82 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

5

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 1945:

10 CGTTTAAAAA ATGATATCAA TCTTTATTGT GGATTGCAAC ATCCGTGTGC TCCATAAAAC 60
 GTGTGGCGAG ACTTGGGAAA GG 82

(2) INFORMATION FOR SEQ ID NO: 1946:

15

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 70 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

20

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 1946:

25 GTATTATTGA TGAAGAAACA GCTCTCCAGT TGTAGATGCA TGCTACGTC ACGTTACCAC 60
 TGTATCAATT 70

(2) INFORMATION FOR SEQ ID NO: 1947:

30

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 50 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

35

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 1947:

40 TATCACCAGC ACCAAGGnTA ATGACATGCT GATCTTTTGC AGTTATGGTh 50

(2) INFORMATION FOR SEQ ID NO: 1948:

45

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 117 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

50

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 1948:

ATTGTATGAA TCTTTGGGGA ATGAACThTn AACGAACGGA CATCTTGCAA TGACGCATCA 60
 55 AAATGGTTTT AACACATGTA ATCGGCTCTC GGTACTATTC GTGTGATGTA CACATGG 117

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 64 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 1949:
 TTGTGATGATT TCGGGATGGA TTGGTATTGT GGTGAATGAA TTTTITAGCT CATCATCAA 60
 TTAG 54

(2) INFORMATION FOR SEQ ID NO: 1950:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 57 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 1950:
 CTCTAGTGGC CATTCATATT TGTCGCTGAA TGATGTGTGT ACATCCATTG CTGCTGT 57

(2) INFORMATION FOR SEQ ID NO: 1951:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 68 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 1951:
 CTGTCCTTCT GAAACTTGGG TATTTAATTA GGAATAGTTA AAAAAATCAT TCACAGAAAC 60
 ATTTAATA 68

(2) INFORMATION FOR SEQ ID NO: 1952:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 106 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 1952:
 TTAAATTAAC CTTAAGGTTG GnATTTTAA CCCCCAAATT TTTGGGGTGG TTAAAAATTC 60

(2) INFORMATION FOR SEQ ID NO: 1953:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 50 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 1953:

GACATTTIACA CTTGCTTCAA TCTGGTCCAG TGCAGCATCT AATTCTTCGA

50

(2) INFORMATION FOR SEQ ID NO: 1954:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 107 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 1954:

ATTTGCCAA CTGTTACGCA CGGTATTGGT TCAATGCAAC ACTTTATCAT TGCTTCAGGG

60

CTATATCGGT GGTATGGGnT GTATCACTTC TTAGAACGTG GTATTAA

107

(2) INFORMATION FOR SEQ ID NO: 1955:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 54 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 1955:

GAAGTGAATA TGAAGCTGCT AAAGACTCCG GAATGCTACC TCAGACAACT GATG

54

(2) INFORMATION FOR SEQ ID NO: 1956:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 365 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 1956:

ATGATTATTT TAGTTCATT TGTTGAGTCG ACTGCTAAAG TTCCATTITAA ATGTTGTACA

60

ATAAGCAGTA ATTATGATT GTTACAGTT TTTAATTAC CATGAACITT TGAAGCATT 180
 GCATGTTAA TAACATTATT TATCGCTCA CGCGTAATCA TAACTAACAT AGATTGTTA 240
 5 GTAGGACTTA ATACTGCGC TAATTCTTTA TTTCAAATG TAAATCAAT ATCAGCATCh 300
 nTnAAAACTT TACGTACTAT ATCAATCTCT TCAATAAATG ATGGTAATTT TACATCATCA 360
 ATAAT 365

10 (2) INFORMATION FOR SEQ ID NO: 1957:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 346 base pairs
 15 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

20 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 1957:

AAATAATGTC ACAAAAGTTA AAGATACTAA TATTTTCCA TATACTGGTG TAGITGCTTT 60
 TAAAAGTGCA ACTGGATTGG TAGTTGGAAA GAATACTATT TTAACAAATA AACATGTGTC 120
 25 GAAAAATTAC AAAGTGGGCG ATCGATTAC TGCACATCCA AATAGTGATA AAGSTAATGG 180
 TGGTATTAT TCGATTAAAA AGATTATTAA TTATCCAGGT AAAGAAGATG TATCAGTCAT 240
 30 TCAAGTTGAA GAGCGTGCAA TAGAACGTGG ACCAAAAGGC TTTAATTTTA ATGATAATGT 300
 AACGCCATTC AAATATGCGG CAGGGGCTAA AGCTGGTGAG CGAATT 346

(2) INFORMATION FOR SEQ ID NO: 1958:

35 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 390 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 40 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 1958:

TTTTCAGIT AATTTTTCCA GTTCACTAAA TACTTTIATG ACTGTACCAG ACCCAATAAT 60
 45 AATTGGTAT TGTCGCCGAG TAGAAAACGT CCTTTAACT ACATCCATAT TGTTTAGCGC 120
 CTCTTCATT ACTAAACTTT CATCATTTAA AACTAATCGT AGTCTCGTTG CACAATGCGC 180
 50 CATTCATCT AAATCTCTT CTCCGCCTAT CGCGTTCAAA ATTTCTTCTG CGGATTGCTT 240
 ATAATTCATA TATTAGCCT CCTAATTAGA ACGGTTCCA TTTATTCCAC TTTATTGTAA 300
 CCGGTTCCAA AAATATTGCA AACACTCTAT TATCATTTTA TATAAACACC TACACCATT 360

55

(2) INFORMATION FOR SEQ ID NO: 1959:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 50 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 1959:

GATTGCATAT AATAGTAAAA ACATTACATC TTGAACAGTA CTCGTTTTGT

50

(2) INFORMATION FOR SEQ ID NO: 1960:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 57 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 1960:

AATTGAACC AGACACTGAT ACAAGTCACA CCCAGAACT TTAAAGGACG TAAATGT

57

(2) INFORMATION FOR SEQ ID NO: 1961:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 50 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 1961:

AACGCTATAT TAGCGATATA CAATGATGCC ATTATCAATA nTACAnCTGn

50

(2) INFORMATION FOR SEQ ID NO: 1962:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 60 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 1962:

TACAACGTCA GTTGGCAGAC ACCAGAAGAA GGATTCATAA GTATATTCAG GAACCTGTTA

60

(2) INFORMATION FOR SEQ ID NO: 1963:

(A) LENGTH: 50 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

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(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 1963:

10 AATTTTCCC CTTTTTAAA TTTCCAAAA AAAAnCCCCC AAnAAAAAAA

50

(2) INFORMATION FOR SEQ ID NO: 1964:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 53 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

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(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 1964:

CAACAAGTAG ATGCATCAGA GAGTAGTGT CAAACGTAA TAGATGTGGC ATG

53

25 (2) INFORMATION FOR SEQ ID NO: 1965:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 54 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

30

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 1965:

35 AGCAAAGGCA TAACTGCTAA TGACCATGTA AATGAGACGA GTCGATCGTG GCCA

54

(2) INFORMATION FOR SEQ ID NO: 1966:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 252 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

40

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(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 1966:

CTCAAATAAC TGGCTCAACT CAACCGGTCT ATACACCAT AACACCGCAT GCCACTCTAG

60

50

CATACTCAAT CGCTCTGGTA CCAGCnTCA AATAACTGGC TCAGGCCAAC TGTCTATAAC

120

ACTAACACGC ATGCACTCTA GCCTACTCAG AGCTCTGGTA CAGCACTCAA TAGCTGACTG

180

55

TCACAGTCCA CACACACTCA ATACTGGCTG ACACAGTTCA CACACnGCTT ACTCGCTCTC

240

(2) INFORMATION FOR SEQ ID NO: 1967:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 59 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 1967:

CAGTTTAAAC TCGATGTTGT GTACTACTGT GCCAGCTGGA ATGTTTITATA ATGGTGATG 59

(2) INFORMATION FOR SEQ ID NO: 1968:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 52 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 1968:

GTTACATGGC ATCAGGCCAA ACCTGTCTAT AACACCATAA CACGGCATTG CC 52

(2) INFORMATION FOR SEQ ID NO: 1969:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 58 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 1969:

ACAATTTTAA TTATATAACT CCAGGGGCTA CAGTAATACG ATTCTCCAG ACTCCAAA 58

(2) INFORMATION FOR SEQ ID NO: 1970:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 59 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 1970:

TGACGTATAA TGGATGAAAG TCTATTAAGT TTAAGAAGCT AATACTGTGA AATCTTTCT 59

(2) INFORMATION FOR SEQ ID NO: 1971:

(A) LENGTH: 52 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

5

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 1971:

10 TATCATGTTA TCTCAATCG TTCACCAACA GTCATTGCT GCATCAGTAA CG 52

(2) INFORMATION FOR SEQ ID NO: 1972:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 58 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

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(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 1972:

TTGCTGTGC CATAGACTAC ACTTGTTGA TATCAGAAAT GGGATCTGTT CCATTACC 58

25

(2) INFORMATION FOR SEQ ID NO: 1973:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 209 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

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(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 1973:

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AGTTAAACCG AGTCCAACCC AAACCTCCAA TCCACCTAAT GGTTAAAATT CCAAACCAAT 60

ACCAGGGAGG GACCAAAAAA CGGAATGGGG CCTATTGGTA GGGTACCTAT CCCATTAAAA 120

40

AATCCATCCA AAAGCCCAAA TTATCGGACC ATTTTCGCCA AAAATAATTT AAGCGGAAAT 180

TGAATACCTT AAAATTCTCn GGGCCCACT 209

(2) INFORMATION FOR SEQ ID NO: 1974:

45

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 69 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

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(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 1974:

55 ATCTGAGTAT TTATAACATA AATCACTAAT ATCGTTATTA CATAGGGATA GGGTAAAAAT 60

(2) INFORMATION FOR SEQ ID NO: 1975:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 118 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 1975:

TTCTGTCATC CGAGTCTGAA TCGCTGCGA ATCACGTCGA GTCGATCGCT ATCAGGTCGA 60
 GTCGCGTCGA ATCGnTCGCT ATCGAGTCGA TCGCGTCGAA TCGAATCACG TCGAGTCG 118

(2) INFORMATION FOR SEQ ID NO: 1976:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 400 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 1976:

TTGCAACnTT TGATCTAGAT ACTACCTTAG TTGGATTGTA CTACTTGATT CTACTTCACC 60
 TTTAGTTGGT TTTGTAGCAG GGGTTTTGTC TTTACCTGAC TCAC TAGATG CGTCATTTTC 120
 TTTTCAACA CTGGTAATT GTTTATTGTC ATCTTTTGG CTGCTTGTT TTTGTGATTC 180
 TTTTCAACA GGTGATGGTG TTGGTTTGCT AGGCGTACTG GAGTAGCTTC CTCTTAGCT 240
 GAGTTATCTT GTTGTCTTT TTTGTAGAT TTATCGGTAT TGGCTTTGT AAATGCTTCT 300
 nTATCAACGA TTCTGACATG GTATTGTCCA TCATAATCAA TCGTTTTTAC GTGAACCTTA 360
 ACGATAGCAT CATATAGAGT TTACCTTCAA CATATGGGAA 400

(2) INFORMATION FOR SEQ ID NO: 1977:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 74 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 1977:

TAGACAAAGA CAGTAACAGT AAAGTACGCT TCAGAACTGA TGGCTCACTG CGAGTATAAA 60
 AACTTGTAGT GTCC 74

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 72 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 1978:

ACTCAAAAAC TCGGAAAACA TTCCAATTGA GCTTAAATCT GACCCTTTTT TTGACCCTTA 60
 TATTTTTTAC AA 72

(2) INFORMATION FOR SEQ ID NO: 1979:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 69 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 1979:

ATGTCATTGG CTTTGAACCTT TATCTTCAAG CACCCAATCG TTTTAACTTT TCAAAATTG 60
 GCACCATAA 69

(2) INFORMATION FOR SEQ ID NO: 1980:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 109 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 1980:

CAGAGAGTTG TCGCTCATTG AACGCCACnT GATGAGTTTT CGCTTACGAA GTGCCACGCG 60
 GTATGGATAA TTTTCACTGT TTGCTGAGTC TTTGATAAGC CTCGACTGT 109

(2) INFORMATION FOR SEQ ID NO: 1981:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 55 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 1981:

(2) INFORMATION FOR SEQ ID NO: 1982:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 53 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 1982:

GAATCTGTC AAGTAGAAT TATCCCGCA TAATGATAAA GGCAGTAAA TGG 53

(2) INFORMATION FOR SEQ ID NO: 1983:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 252 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 1983:

GnCTTTTGAA TAAAGAAAAA TTCATCAATA GAAAAACCGT CTTTATCGTC TATTTTTTTA 60
 ACTAGTAAGT TCGGGCTTCT TAGAGACTCA AATATTGATT TTACGTTTTT CTTTGTACA 120
 CCACTAACAC TAAATATTCT TCCATCTAAA TCTACTAATT CTGGTACCGC AAAGACATCT 180
 AAACCATGTG TTTTTCCTTT GTATTATTTT TCATCTTTTC CCAATAAAAA CACTTGAAC 240
 TTTTGATTn GT 252

(2) INFORMATION FOR SEQ ID NO: 1984:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 63 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 1984:

CGTGTAAATC AACTAATTCT TAGTTTTAAC TGTCGTAATA ATCAACTGAA CACTTCAAT 60
 CTA 63

(2) INFORMATION FOR SEQ ID NO: 1985:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 63 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 1985:

5 TCCTAAATG ACCGCTAATG CCTATGGATT GTTATCACCG ACCGCAGGGA CAGCACGACC 60
TAC 63

(2) INFORMATION FOR SEQ ID NO: 1986:

10 (i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 112 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

15 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 1986:

GGCATATAAA AATTAGAGAA ATTATTTCAA ATGAACAGAT AGAGGCACAA GATGAATTAG 60
20 TTAACGATT AAACGATTAT GntTTAAATG TCACTCAAGC AACTGTTTCT CG 112

(2) INFORMATION FOR SEQ ID NO: 1987:

25 (i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 106 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

30 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 1987:

TTTATCAATT TGTAACGAAC ATGAATTACA TGTTTCAGGA AAATATATTT CATCCCATTT 60
35 TTA AAAAGTA TAAGATTTTA TGAAAAATTA AACCAATTnA GTATAA 106

(2) INFORMATION FOR SEQ ID NO: 1988:

40 (i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 400 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

45 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 1988:

AATGGCGTAG TTACAGCATT TATGATTGTG TTAATCTTTT CTTCGTATAA ACATAATCTG 60
50 TTGACCAAA AGTATTTAAG TGTCAATTA ATTAGTTTAA TTATTACGT CGTATGGCAA 120
GTTTATTGTA TAATGTTTAA TTATCATTCA AAACCAAAAA ATAATTTCATT TTCAAAATTT 180

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TGGTTAGGTG GACATCAGAT TCACITCCAT GAAAGTAAAT TAATTGAATT TGTGGTTTC 300
 TTAGGAATTT CTTATGTTAC ATTCAAAAGT GTGCAGTTAA TTATGGAAAT TCGTGATGGT 360
 5 TCTATCAAAG AAATTAAAGT ATGGAAATTA ATTCAATTTA 400

(2) INFORMATION FOR SEQ ID NO: 1989:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 400 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 1989:

TTCAGCTTAC AATAATGAGC AGGTTGGGGT GGGCTCCAAC GCAGAGAATT TCGATAAGAA 60
 20 ATTCCACAAA TAATACAAGT TGGCCCACTC CCATTCGTGA ATAAATATAG GAGGTCATTG 120
 TTATGCAAAAT AGAAGTCTACT GATGCAGCAG TAACITGGTT TAAAAATGAA CTTGAGTTGC 180
 CTGAAAAATAA TAAAGTGCTC GTGTTTTTTG TAAGATATGG TGGCGAATTC CAACTCAAGC 240
 25 AAGGATTTAG TCCTGCTTTT ACAGTTGAAC CAAAGGAAGA TGTTGATATT GGCTATGAAC 300
 AACAAATATGA CGATTTAAAT GTGTGCTGAG CGGAAAAAGA TTTGTGCTAC TTTGAAGATG 360
 ACCACATTAT TGTAATGTGA GTTGTCACGA AGATGAATTT 400

(2) INFORMATION FOR SEQ ID NO: 1990:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 111 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 1990:

CAATTTATTA TGTAATAAT TATAGCATTG ATGAACAAGG CGCTCAACGT AATAATACAA 60
 TTAATGGATT GTTTCACAAG ATGGTAAAGC TAGGATGTCT TTTTATTAAG A 111

(2) INFORMATION FOR SEQ ID NO: 1991:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 54 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

TAAACAAATT CATCAATTGT TAGTGGCATA TCCTAATGTA ATTAGAGAGG AGTT

54

(2) INFORMATION FOR SEQ ID NO: 1992:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 59 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 1992:

GAACGATAGA TTGATGAAAA GTTTAAAAA GTACGTATAT GTTTATTAAG TTTGAGTTT

59

(2) INFORMATION FOR SEQ ID NO: 1993:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 73 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 1993:

CGAGACCAAA ATATTCGAAC GAATAATTTC AGTGTTTTC TCCTTTATTA TAGATTCAAG
CTATGGATAA TAG

60

73

(2) INFORMATION FOR SEQ ID NO: 1994:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 50 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 1994:

ATCCATACAA ATGTAACAAG CACAATTGcN GCCATACITn GCATGACAGT

50

(2) INFORMATION FOR SEQ ID NO: 1995:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 57 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 1995:

(2) INFORMATION FOR SEQ ID NO: 1996:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 50 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 1996:

TCAnTTAAaA TTAATGTnCG TTGGGGCTCT AATAAAATTT GTTTACAACG 50

(2) INFORMATION FOR SEQ ID NO: 1997:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 61 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 1997:

TCATGATTG AAATGACTTT CAATGACTTG GGTGGGACAC TTGTTGCACA GCTGGATGTG 60
 C 61

(2) INFORMATION FOR SEQ ID NO: 1998:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 50 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 1998:

CATGCATTGA TgTCTCAAA GAACATGATG AAACAGGTCA nCACATGnCA 50

(2) INFORMATION FOR SEQ ID NO: 1999:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 52 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 1999:

GGTTCGTAC TGATTGGTA TACATCTGAT TTACCAATCT TGCGCACTTG TT 52

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 53 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2000:

ATGTGGTTAG ATATCTGCAC ACTTGAACGT TATTGTGGGA TATACTTGGC CAT

(2) INFORMATION FOR SEQ ID NO: 2001:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 54 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2001:

ATCTCAGTAA GGGTAAGCGT CAAAGTCTGC ACGGATGCTA ATGTTTACCA GGTT

(2) INFORMATION FOR SEQ ID NO: 2002:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 400 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2002:

CTAAAGATTG TAATGCTTGA ACAATTGGTT CAGTGAATTT TTGGAAATTG TGGAAACTGT
 TACCATCATC ATCTGTTATA AAACATAAGT TTAAATTGCC AGTATCATGA TAAACAGCGC
 CACCACCAGA AATTCTTCTT ACTACATCGA TGTTGTGAGC ATCGATATAT GTCTGATTTA
 CTCCTCTTAT CGTATTTTGA TTCTTTCCAA CAATGATAGA TGGTCTATTT ATGTAAATAA
 AAAAGTAACT TTCCTCTGCT GGTAATTTT TTAAACATA TTCTTCCATT GCTAAGTTTA
 AAGTTGGATC TGTAATATA TTATTACTAA TGAATTCAT TACAATCTCT CCCTTATATC
 TATATATATn CTCCTACTTAT TTATGCCTTA ACTTTGCTCA

(2) INFORMATION FOR SEQ ID NO: 2003:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 57 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2003:

CCGAAATAGG ACGGCGAGTT GGATTTATTC GAAATGGGTG GCGTAAATAT ATACAGT 57

5 (2) INFORMATION FOR SEQ ID NO: 2004:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 112 base pairs

(B) TYPE: nucleic acid

10 (C) STRANDEDNESS: double

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2004:

15 nAGTAGTTGA AGGCGACCGC GGTCCACAAG CTGCAAACGT TGTAAACTA TAATTCCTAG 60

ATTGGAATCA TTGATTTTAA CTAACACCTT ACCAAGAAGT AAGGTGTTTT TA 112

20 (2) INFORMATION FOR SEQ ID NO: 2005:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 50 base pairs

(B) TYPE: nucleic acid

25 (C) STRANDEDNESS: double

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2005:

30 AAATCTTGAC ATAGGCACAG GAATGTATAT TGATCTCGAT CACTTAAGTC 50

(2) INFORMATION FOR SEQ ID NO: 2006:

(i) SEQUENCE CHARACTERISTICS:

35 (A) LENGTH: 115 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: double

(D) TOPOLOGY: linear

40 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2006:

AAGGTGGGTT TAAATTTCCC AAAAAAAAAA GCCTTTTAAC CTTTGGGGG GTCCCTTTC 60

45 CTTGGAATTG GAAAGGGGCC AAAATTGGAA TAAGGGGnTT GGAAAAACCC AAGCC 115

(2) INFORMATION FOR SEQ ID NO: 2007:

(i) SEQUENCE CHARACTERISTICS:

50 (A) LENGTH: 105 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: double

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(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2007:

TGAAGAAATA GCAATGAAC TCAATATTTC TATTGAACGT CAATATTTCACCAATTATA 60

5 TCGCTTCAAT AATCAAGATT TAAAGCATCT TGAACAAGAN TTTGA 105

(2) INFORMATION FOR SEQ ID NO: 2008:

(i) SEQUENCE CHARACTERISTICS:

10 (A) LENGTH: 67 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: double

(D) TOPOLOGY: linear

15 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2008:

ATTGGCTACT AAAGTTAAGG ACATGATGGA TTGGATTAGT GGTATGCGCT TTGAAAAGAT 60

20 CAATTAT 67

(2) INFORMATION FOR SEQ ID NO: 2009:

(i) SEQUENCE CHARACTERISTICS:

25 (A) LENGTH: 73 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: double

(D) TOPOLOGY: linear

30 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2009:

TATAAAATTAG CGTCCTTCAT ATCACAACGA TGATGCTCTG TCGGAAGATC TGATTATTAT 60

35 CAATGTGCGC ACG 73

(2) INFORMATION FOR SEQ ID NO: 2010:

(i) SEQUENCE CHARACTERISTICS:

40 (A) LENGTH: 51 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: double

(D) TOPOLOGY: linear

45 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2010:

CTTTGTTTAT GTTTCGTTTA ATTGTAAACC CTCCTTTGG ATACCGAGGT T 51

(2) INFORMATION FOR SEQ ID NO: 2011:

50 (i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 88 base pairs

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(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

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(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2011:

TAACGACCAA GCTTAAAGAG ATACGCTCTT ATGCGATTGG ATAGTCGTT AAAGTTAACT 60

10

ACAATACCTC ATAAGTAGAT TTAGAATC 88

(2) INFORMATION FOR SEQ ID NO: 2012:

(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 56 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

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(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2012:

GTCAACCCCTT GCCAGCTTATATATCAGATA CTGGGATGTG ACTTCGGTG AATTAC 56

25

(2) INFORMATION FOR SEQ ID NO: 2013:

(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 400 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

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(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2013:

35

AGCTTATAGT ACITGTGACT TCATAATGGA TGAAGTGA GTACCAAAAG AATTAACACA 60

ATTACACGAA TAATTTAAAT AGAGAGTGTG ATAGTAGGTG GAATTATTAA ATAGTTATAA 120

TTTGTGTTTA TTGCTATTAA CTCAAATGAT ATTAATGTTT ACAATACCAG CTATAATTAG 180

40

TGGTATTAAG TACAGTAAAC TTGATTATTT TTTTCATCATA GTAATTTCGA CATTATCGTT 240

ATTTCTATTT AAAATGTTTG ATAGCGCGTC CTTAATCATA TTAACITCAT TTATTATTAT 300

45

AATGnATTTT GTCAAAATCA AATGnATTC nATTTTGTG ATTATGGCTT CGCAGATTAT 360

CCATACTGGT GCCAATACA TGGATATAGT TATATATGCA 400

(2) INFORMATION FOR SEQ ID NO: 2014:

(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 58 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

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(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2014:

5 TCTTTCGAGG ACAGTAGAGG GTCCACCCTA TTGGACGTGG TACTGTACTA CTTTAA 58

(2) INFORMATION FOR SEQ ID NO: 2015:

(i) SEQUENCE CHARACTERISTICS:

10 (A) LENGTH: 55 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

15 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2015:

TCTACCTGCA GGCATTCAAG CTGGCACTT GCCGCTTTT TACAACGTGG TGACT 55

(2) INFORMATION FOR SEQ ID NO: 2016:

20 (i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 66 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
25 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2016:

30 TACTCTTAAG CTAACAACGG CGGTTATGAG TCCTTTGACA AGGTATCGGA GGAAAGACCG 60

TAAAGC 66

(2) INFORMATION FOR SEQ ID NO: 2017:

35 (i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 105 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
40 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2017:

45 CCAATAAGCA CACTGCCATT ATTGAGGACG GTACATnTAC GGTTAGACCC AATTGTTTCAT 60

GGCGGTGGGC ACATAGTGTT TGGCTTTGAG GAGGTIACCA TTGCC 105

(2) INFORMATION FOR SEQ ID NO: 2018:

50 (i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 58 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
55 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2018:

CCTTCCAATA GTAATTGATT GATGTATGAG TATATTAGGT GTGAAATCAA GAGGATTTC

58

(2) INFORMATION FOR SEQ ID NO: 2019:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 52 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: double

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2019:

TTTCCTCGTA GGTGGTTCCTT CTCATCTTC GTTGTTTTGT CCGAAGTTTG GA

52

(2) INFORMATION FOR SEQ ID NO: 2020:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 50 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: double

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2020:

ATAGTTTAGG TGAGGATGTT GnGGTACGAC AGGAAGAAAG ACGGCAAAACA

50

(2) INFORMATION FOR SEQ ID NO: 2021:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 300 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: double

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2021:

TTGTACAAT AATTCTTCA GGATCATAGG AAAAATGATA ACGATTTTGT AAGTATTGAC

60

TAATTGCTTC GCGAGTTTCT AATAACCTT TATTGTGAGA GTATGATGTC TTGTCATTGT

120

TAATAGCATC AATATATGCC TTTTTCACAA CATCAGGCAT CGGGAAGTCT GGTGGCCAA

180

TAGTTAAATT AACACAATCA TCCAAATTAT TCATACGATT TGAAAATTGG CGATACTTGG

240

GTGGCTCCTA AAATAATTAG GAAATGAGGA nTnAAGGAA GGTTCATT TnGTGGACAC

300

(2) INFORMATION FOR SEQ ID NO: 2022:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 400 base pairs

(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

5

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2022:

TCATCCAAAT TATTCATACG ATTTGAAAAT TGGCGAATAC TTGGTGTCTCT TAAATATTTA	60
GAATTAGAAT TTAAGAAAAG TTTCATTGTG GACACCTCAA ATATAAATCA AATATTGTCT	120
AAAAATTAG AAATTAATAA TATCATAACA TACTTTTAAA GCAAAAAAGG GTAAATTACT	180
TAAGCTTTAT TTGAAAAACG AAAAATGTCT AAATACACTG TAGTAACCTAC TTTTCAAAAT	240
GAATAAAGTG GTTACAGTTA ATGTACTTAG ACAGTATAAA ATTATGAATC TTTAAACTGT	300
GATGGTCTTT GTAAATTAAT TATTGGATTG GTCCATTAC AAACAAAGTT TGTAGATAAT	360
ACATATACGA TGATTACAGA TATACTTATT AATAAAGAT	400

20

(2) INFORMATION FOR SEQ ID NO: 2023:

(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 50 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

25

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(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2023:

TThAAATATA CCAATCACGT TCATCCACAG TGATCCTAGA CCAATCCAGA	50
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(2) INFORMATION FOR SEQ ID NO: 2024:

35

(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 66 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

40

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2024:

TTTTTAATGG TTTAAAAATT CCTAATAAAA ATTTTGGAAA ACCTAAATTC CAAGGGGTTA	60
AATTCC	66

50

(2) INFORMATION FOR SEQ ID NO: 2025:

(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 64 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

55

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2025:

GTAAAGAGCAA TGGCGCAAAA TGCCTGTAAT GATATTGTGA ACGTAATTGA ATCAGTAGAG 60

5 GACC 64

(2) INFORMATION FOR SEQ ID NO: 2026:

(i) SEQUENCE CHARACTERISTICS:

10 (A) LENGTH: 53 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

15

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2026:

CTGTGGCTGC GTGACTTAAT TCTTTTGGCC CGTTGGCATA TGAGGAAATG TCA 53

20 (2) INFORMATION FOR SEQ ID NO: 2027:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 53 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

25

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2027:

30 CAATTCACTA TTATTGGITT AGGTTGTTC ACGTTCATCA TGACCGCACC ACA 53

(2) INFORMATION FOR SEQ ID NO: 2028:

(i) SEQUENCE CHARACTERISTICS:

35 (A) LENGTH: 73 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

40

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2028:

CAACTAGACA TAGTATTGCT GCATTAATCA AGTCAAGCTG CCACACTAAG AATCGATGCA 60

45 AACGGAATCG TCA 73

(2) INFORMATION FOR SEQ ID NO: 2029:

(i) SEQUENCE CHARACTERISTICS:

50 (A) LENGTH: 127 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

55

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2029:

AATAATAATT CTGGAATAGT GTTAACTACT TATTTCCGT TTAAGATTTC AACTTAATAT	60
GGTTTACAGC GCCTAGCTCG TCTAATTCAT CATCACGTGT AGAGTGCTCT GCCTTATCAG	120
ATCAGTT	127

(2) INFORMATION FOR SEQ ID NO: 2030:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 61 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2030:

GCAAGTGAAT TGAAGTGACA TGTGGCTGGT GCTTCATGGT AATGATAAAC CAACACCATG	60
G	61

(2) INFORMATION FOR SEQ ID NO: 2031:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 78 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2031:

ATAAATAICT ATTAGATAT AAGTATTGAT AAGTTGCTTG AATTATATAA GTGAAGGAGT	60
AGGTGTCATT AGTATAGT	78

(2) INFORMATION FOR SEQ ID NO: 2032:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 229 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2032:

GAATAGTCTT TATAAAATGT TGACACTGTA GTGGCATATT GTAAATTAAA TATTATTATG	60
TGATCATTTT GTTTAAATAT TAGTTATAAG AAGTGAAATA nTCATTTTAA AAGGAGACTT	120
AAAACTTGAA ACGATCAACG AATCAAGAAA AATTTCTTGA TACACTAATT AGACTTAATA	180

(2) INFORMATION FOR SEQ ID NO: 2033:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 57 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2033:

TTTTGTCATC TGTATAGGTA TCGCGGCCGG TGTCTTTATT CACTTTGAAC TGTGCGT

57

(2) INFORMATION FOR SEQ ID NO: 2034:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 62 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2034:

AAGGCATTGG ATATAAGACT TGATGTTGCA TGGCAATCAC ACTGCCTAAT CCTTGCATAT

60

AA

62

(2) INFORMATION FOR SEQ ID NO: 2035:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 52 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2035:

ATGGCAAATA CTATACATCG TCCAATTGAT TGAAAAATAT GGTATTAA GA

52

(2) INFORMATION FOR SEQ ID NO: 2036:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 86 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2036:

AAGGTGTTTT TATATGCTTA TTACAAATAC TTAACGCGAT GAGTTTCTCA ACCAAATTGA

60

(2) INFORMATION FOR SEQ ID NO: 2037:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 71 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2037:

TACCCACCCC CAAACCCAGG GTTTTAAAAA ACCCCTTCCA AAAGCCCGGA AAAACCAAAA 60
 GGAATTATTT T 71

(2) INFORMATION FOR SEQ ID NO: 2038:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 50 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2038:

GAATCCCGGA AGTACAAATTT GGTACGTGAA GAAAATGGTA GTGGAATTAC 50

(2) INFORMATION FOR SEQ ID NO: 2039:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 400 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2039:

CAGTATCTCT TGGTATTTTA ATTGGTGCTT TATTAAACGT AATTTTACCT TTATATATCG 60
 ATGGAGCGAA GAGTATTTTC GTATACGTTT ATAGTGCGTC TATTTTACCA GGTATGATTC 120
 CTTGGTTTAT GATTTTATTC AGTCATTTAC GTTTTAGAAA ATTACACCTT GAAGAATTGG 180
 AAGGTCACCC ATTCAAAATG CTTGGTGGCG CAGTAACATA CTATTTAACA ATCTTATTC 240
 TAATATTAGT ATTGGTTGGT ATGGTATTTA ATGTTGAAAC TAGAATAICA GTGCTTATTG 300
 GTGTCATCTT CTTAACGATT GTAACGATTT ATTATTTTAT TAGATATAAT AAAAanTAATG 360
 TAAAGCAnAA TAGTATGTTA TAAnGAGCGn TACTTATGAC 400

(2) INFORMATION FOR SEQ ID NO: 2040:

(A) LENGTH: 79 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

5

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2040:

10 AAGCTGATTT TTCTAAATGT TGAAATCAT AAATGCTTA ATAATAATA ACGAGATCTA 60
 AGTAATAGTG CTCATTAA 79

(2) INFORMATION FOR SEQ ID NO: 2041:

15

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 54 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

20

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2041:

25 AATTGAACGG ATCGTTCCCA ACGTTATCA ACCAGACCG GTGTTGAAC CCAA 54

(2) INFORMATION FOR SEQ ID NO: 2042:

30

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 50 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

35

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2042:

AATGGGATTG GTTCAAATG AAATGGGCTG TTAGTCCCTG TAAACCAAG 50

(2) INFORMATION FOR SEQ ID NO: 2043:

40

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 109 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

45

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2043:

50 ATTGgATAA TCAAAGCATT GAATCATACA TAGTCACATT GATTGTTTCC TCAGAGTTTC 60
 AACACTCTAT AACTCATTTT AGTAATTTCG TGATTGCGCA CTTCATGTG 109

(2) INFORMATION FOR SEQ ID NO: 2044:

55

(A) LENGTH: 50 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

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(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2044:

10 TTTTATGAG GTGATGAAGT GGGTGAAGCT GAAAGGAAGC AAAAGCTTGG 50

(2) INFORMATION FOR SEQ ID NO: 2045:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 101 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

15

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2045:

20 TTGGCCCCCT TCCAACCCCT GGAAATTTTA AAAGGCCATT TTGGGGTAA AACCCCTGGT 60

25 TCCAAGGACC CCCAAAGATT TTTTAACCTT CCAATTATTA T 101

(2) INFORMATION FOR SEQ ID NO: 2046:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 100 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

30

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2046:

35 ACCCTTTCCA AAAAGCCCAT TTTGAATTCC CCAAGGGAG CCAAAATTTAA GATGGCCGCh 60

40 AAAAAGGACC GGGGGGTCCA TGTTTTAATT TAAGCCGAC 100

(2) INFORMATION FOR SEQ ID NO: 2047:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 50 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

45

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2047:

50 GTTAGTTATG AGCAACGTAT TAATGAAATT ATTGAGCAGT AATTnACCAG 50

(2) INFORMATION FOR SEQ ID NO: 2048:

55

- (A) LENGTH: 56 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: double
- (D) TOPOLOGY: linear

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(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2048:

10 TACGTATTTT CAAATGACGT TGGTGGACGT CACACTCCAT TCTTCTCAAA CTATCG 56

(2) INFORMATION FOR SEQ ID NO: 2049:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 82 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: double
- (D) TOPOLOGY: linear

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(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2049:

TTTTCCCCC CCCCCCAAA TTGGGGGTTA AAATTTTAAA AAAAGGGGTT AAAGGGAAC 60

25

CCCAATTCG GTTAACCTTT TG 82

(2) INFORMATION FOR SEQ ID NO: 2050:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 51 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: double
- (D) TOPOLOGY: linear

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(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2050:

TCAGATGGAT GGCAGTTATT TGGTATTCCA TGGGTATAAA GATAGCATAT T 51

40

(2) INFORMATION FOR SEQ ID NO: 2051:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 55 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: double
- (D) TOPOLOGY: linear

45

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2051:

50 TGAACGGGAG AAAGATGTTG TTGCATGGTG TCTCGGAAAC GTTTGTGTCC ACGTA 55

(2) INFORMATION FOR SEQ ID NO: 2052:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 74 base pairs

55

(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

5

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2052:

ATACCTGGAT GCAAAGGCAA AGTCGCAATT TTCCTGTTC TAATGTGTCT AACTTCTCTT 60

10

CTAAAGTTCA GGT 74

(2) INFORMATION FOR SEQ ID NO: 2053:

(i) SEQUENCE CHARACTERISTICS:

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(A) LENGTH: 51 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

20

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2053:

AATCTTGCTC GATGTAATGT TCAGGTCCTC TGACCTCAT ATGCATGAGG T 51

25

(2) INFORMATION FOR SEQ ID NO: 2054:

(i) SEQUENCE CHARACTERISTICS:

30

(A) LENGTH: 52 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2054:

35

CATGACTTA TAGCTTAATT ATTATAAAAA ATTCTCCAG ATTAACTTT CT 52

(2) INFORMATION FOR SEQ ID NO: 2055:

(i) SEQUENCE CHARACTERISTICS:

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(A) LENGTH: 400 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

45

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2055:

ACTGACACAT TATATTAGTG AATTATTAAA AAATGATGAG AAAATTAAAA TCATCATGAA 60

50

TGAATTCGGT ACITTTGATA TTGATAGCAA TAGTATTCA AATGAAATTG AAGTCCATTC 120

ATTGATTAAT GGTGTGTTT GTTGCATCT TAAACAAGAA CTGTCTATG AACTAAAAGC 180

CATTGCTTTA AAAGGGGACG TTAATCATGT CATCATAGAA GCGACAGGCA TTGCGCATCC 240

55

TTATTTATGG TGTATTAGAT GCGACTCGAT TTTTGAACG TCATCAATAT ACCGAAAAAT 360
 ACAGTTTCGC TGGATGGGGA GGATCCAGTT GGAAACTAA 400

(2) INFORMATION FOR SEQ ID NO: 2056:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 400 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2056:

TCAAAACTTT GAAGTTGTGC TTGCTTTGCA CCAITTTTAA AATGTTTCAGC TGAGAGTATA 60
 TCTTCGCTG TAAATTTTAC TTCTCCTGGA CTTAAAGATT CAATTAACAA CCAAGCCGAT 120
 AACGTATCAT TTAGCAATTG ACTCATGAAA TCCACCTTG TTCCCTATTT GTTTTTTACT 180
 TAATGCTATT TTAACAAATA ATTTAATCAT ATTAGTGTTT TTCAAATAA ATTCATATAT 240
 TATCATTACC ATATTTATTC AACAAATGTT TGTAAAATCC TCACTAATAA AATTAATCGA 300
 TATGACCATA ATTCATTATC CAATAAATGA CTATAAAAT TTCTnCTATG CCTTCATTG 360
 CAACTAAATT TGGACATCAA AAAAGAGCAC TCCTGAATGA 400

(2) INFORMATION FOR SEQ ID NO: 2057:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 400 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2057:

TTGTTGTGT GATTTCACAT TTTCAAAAT TTGTTGCATG TTGTTAACTT CATAAATTAG 60
 TGATTCGACT ACATCATTC A TGAGGACGCC TCCTACATT TTTAATTAT CACAATATAC 120
 TGTATTGCTC ATGTTTTAAC ACTCTATATA ATTTGATTTA ACTATTTTT CAAATGTGTT 180
 ATCTGTTAAA TCAAGTAAAT CTA AAAACTT CCTATATAA TACAAAATTT TATCGTGTAT 240
 GTTGTTFATC GATGAAAATA CTTTAACTCT AATAAAATCA TTTAAATCAA ATACACCTCT 300
 GCTGATTAAC AACACATACT TGTACTTGCC TCAAAAATAA AAATTACTAA TCATGATTTG 360
 ACTTTTATAA CAAAATTC A AAATATTGTA ATGAGTATTC 400

(2) INFORMATION FOR SEQ ID NO: 2058:

- (A) LENGTH: 400 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

5

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2058:

10 TCCTTTTACT CGCAATTTTA GGAAAAATGG TTGGATCAAT TGATAAAACC GGAAAAATTAT 60
 TAACAATAAT CAATAAAATA TCAAGCATAA TAATTATTAT TGTTGCTCTG ATGATATTAC 120
 AAAAATTAT TCAATTATTA TTCTAAAGCG TTATGTAGTT GTATTTTAAA AGCGTTATAC 180
 15 AAAAGACATA CTTGTGCTTA TGTATAACGC TTTATTATT ATAAATTGG ATCAATTAAAC 240
 TCAACAAATT TAAATGTTC ATTGTCATAT TCAAAATTCG GGATATTACA ATTACCGATA 300
 TTATGCTTAA ATGCTTCATC TAGTTTAAGG CAATATCTTA AAAATACCCn CCTTAnTGGT 360
 20 CCATGACTCA CGACTAATGC ATTATTCTTT GGTTTGAGAC 400

(2) INFORMATION FOR SEQ ID NO: 2059:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 51 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

30

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2059:

35 AAAACAACAC AATCAAAAT ATTGGATACA ACTGAAAGT TATCAAAGCT A 51

(2) INFORMATION FOR SEQ ID NO: 2060:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 50 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

40

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2060:

45 TTATCATGTT TAGTAGATTT TAAGAAGCTA GAACATTGTA GATATGATGA 50

(2) INFORMATION FOR SEQ ID NO: 2061:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 50 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

55

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2061:

5 AACGTCGTnA TATCnCTTG CCAACAAAG ATATTGTCAC CTTTATCGG 50

(2) INFORMATION FOR SEQ ID NO: 2062:

(i) SEQUENCE CHARACTERISTICS:

10 (A) LENGTH: 50 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

15 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2062:

ACCATGGTn ATATGGTCAT GATGATCGTT TGTCCGGGA GCTTGAGCTG 50

(2) INFORMATION FOR SEQ ID NO: 2063:

20 (i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 81 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

25 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2063:

30 TTTCCTTGG TTTTGAATT TAACCAAATT TGGGAGGGAT TGGGACCAC CCCAGGATT 60

TTAAAAA AAAATCCCAG G 81

(2) INFORMATION FOR SEQ ID NO: 2064:

35 (i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 51 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

40 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2064:

45 TTTTGGGGAC CTTAACTGGG TGGTCTGGA ACTGTTTCCC TTCAAACAC A 51

(2) INFORMATION FOR SEQ ID NO: 2065:

(i) SEQUENCE CHARACTERISTICS:

50 (A) LENGTH: 52 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

55

ATGATGTATT CAAAAGGTAT CTATAAAATA GCTTTAGTTG GAAAAGATGA GA

52

(2) INFORMATION FOR SEQ ID NO: 2066:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 53 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2066:

TTTCATCACT GGCATCTGT AATTCTTGG TCTCATATCT GGAATTAATA GGT

53

(2) INFORMATION FOR SEQ ID NO: 2067:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 63 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2067:

AACCATTAAAG AAATTGGATA CACAGAGCAA ATATGGTTAT GATTAGGAAC CATGGCATT

60

ACC

63

(2) INFORMATION FOR SEQ ID NO: 2068:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 58 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2068:

AAAGGCAGCG ATGTTACTCA TACCGAACCT GGTATATAT GAGCGATGAT GCAATGTA

58

(2) INFORMATION FOR SEQ ID NO: 2069:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 67 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2069:

AACAGGA 67

(2) INFORMATION FOR SEQ ID NO: 2070:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 86 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2070:

CATTTAACCC ATCTCTTTT TTAAATCTT CTATACTACG GTTTAAAAAC TCTACAATAA 60
 CTGCCATTTC ATCATCATCA AAGACT 86

(2) INFORMATION FOR SEQ ID NO: 2071:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 381 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2071:

GTITCTTCAA AATATGTGTA TTACCTTTT GTAIGGTTAA ATCTTTTAA TCTATCATTC 60
 TTGCTTACC TCTTTGGTG TATCCTCTT TTCAACATAT GTGATCGATA TGACATATTG 120
 CCTTTATGC TTTATTCTGA CATACGTTCT ACTAGGTGAA AATCCATTAA ATGTTAATTT 180
 ATAATCAAGC TTTTCCCCC TTTCACTATA AGCCGTAATA TTAACATATT GTTGCGTACC 240
 TTTTGGCACT TTGCATAAC TATACTCCGT TTTTAAGAAA GGATTAAGAC GATCAAGTAT 300
 AGGATGATGT ATGATGTAA AAGCAATAGT AATGGATAAT ATTAATCCTA ATAATATTGC 360
 AATGATAAAT TCATAGTTA A 381

(2) INFORMATION FOR SEQ ID NO: 2072:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 52 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2072:

ATCCCCGAAT TGCTTCGCAA ATGTATCATC TTCGAGGCTA CGTTACTTAA AT 52

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 82 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2073:

CCAAAAACAG CATCACTGTG ATTATGGTTT TCATCTTCTA TAACTAAGAA TACATGTTTT 60
 TTGTAAAAA TTTTITGAT CA 82

(2) INFORMATION FOR SEQ ID NO: 2074:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 82 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2074:

TTTATCGCAA TGAGGGAAGA TAAAGGATCC CGAAAGCGCC GTATGGGTTG GCAAAACATTG 60
 GGGACCAAGA CGTTCCTCCA TA 82

(2) INFORMATION FOR SEQ ID NO: 2075:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 66 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2075:

CITGGTTGCT CTTATTAT TTAATTGAGA CCTAGAAATA AGTTATTAAG CACAATCATT 60
 CACITT 66

(2) INFORMATION FOR SEQ ID NO: 2076:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 57 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2076:

(2) INFORMATION FOR SEQ ID NO: 2077:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 326 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2077:

TACGTTCTAT CATAGAGCCT GGAGATGAAA TTATAATACC GGGACCAATT TATGCAGGCT 60
 ACATACCACT CATCGAAGTA CTAGGTGGTA AACCAATTGA TATTGATACA ACAGCAACAC 120
 AATTTAATAAT TACACCTGAT GCATTAGAAA GTCATTATTC TCCAAAGACA AGAGCTGTCT 180
 TGTAAATTA TCCGACTAAT CCAACTGGCG TAGTTTAAA AAGAaatGAA GTTYTArATA 240
 TCGTAAATGT ATTAAAAAAA TATCCGTIAT TTATTATTAG CGATGAGATT TATGCTGAAA 300
 ATACATTTAG TGGTAACAT GTATCC 326

(2) INFORMATION FOR SEQ ID NO: 2078:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 56 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2078:

ACCCCTTAAT TTAATTGATG TTTTGTIATT TTTAAATGA ATAGTTGAAG AAAAAT 56

(2) INFORMATION FOR SEQ ID NO: 2079:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 61 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2079:

CACGTACTGC CATGTATGCA CAAGCCGGCA TTCATAAAGC CTTCCATGGC AGTCGTTATC 60
 A 61

(2) INFORMATION FOR SEQ ID NO: 2080:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 94 base pairs

(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

5

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2080:

TGGGACAGGG CGTACCATTT CAAATGATA GTTCTGAGCT GCTAATTAAT ATGCCTTCGA 60

10

AAAAGATGAG TTTAAATTTA GATGATGAGA CTGA 94

(2) INFORMATION FOR SEQ ID NO: 2081:

(i) SEQUENCE CHARACTERISTICS:

15

(A) LENGTH: 50 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

20

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2081:

AAGACGACAT GCAAGACATT GCCTTATCTA ATGACAATGT TAAAGCGAGT 50

25

(2) INFORMATION FOR SEQ ID NO: 2082:

(i) SEQUENCE CHARACTERISTICS:

30

(A) LENGTH: 50 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2082:

35

TTGTTGGGCT AAAAATAAAG TGGCATTGAC GTGACCGCAA GTTGACGTAC 50

(2) INFORMATION FOR SEQ ID NO: 2083:

(i) SEQUENCE CHARACTERISTICS:

40

(A) LENGTH: 133 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

45

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2083:

CTTCCCAACA TTGGCGACTG AATGGCGATG GCGCTGATGC GTATTTCTCC TACGCTCTmG 60

50

CGTATTCAAC CGTATGGGC ATCTCATACA TCTGTCGATG CGCTATTAAG CAGCCCCGAAC 120

CGCACACCGT GAG 133

(2) INFORMATION FOR SEQ ID NO: 2084:

55

(A) LENGTH: 57 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

5

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2084:

10 GGTAGGGGCA CTATTTTGTG TGTAAGGTT TTGTCGGGCA GTGTAAATC AACGACT 57

(2) INFORMATION FOR SEQ ID NO: 2085:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 56 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

15

20

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2085:

CCCCCCCCAA AAACCGCCCC CCCCAATTG GCCTTTTTC AAGGGGGGTG TTTTAA 56

25

(2) INFORMATION FOR SEQ ID NO: 2086:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 114 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

30

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2086:

35 AATAGCGAGA GCCCGACCAT CGCCTCCAGA TTGCGACTGA ATGGCAATGC GCTGATGCGT 60

ATTTCTCCTA CCATCGTGGT ATTCAACGAT ATGGGCACTC TCATACAATn GCTC 114

40

(2) INFORMATION FOR SEQ ID NO: 2087:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 80 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

45

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2087:

50 AAGGGGGAAA AGGAACCCAA GGCCCCCTTC CCRAGSAAAT TGGGGGGTTG GAAAAAACCA 60

AAAATTTTTT AAAAACCCGG 80

(2) INFORMATION FOR SEQ ID NO: 2088:

55

- (A) LENGTH: 66 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

5

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2088:

10 GGGGTAAGTG GTTGAGACAG GAACTTTACA AGAGGTGTTT CGTCATCCTA GAACGACGCT 60
 TGCTCA 66

(2) INFORMATION FOR SEQ ID NO: 2089:

15

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 62 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

20

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2089:

25 ATCAATGTAT TACGTATCGA AGGTGAATTA TATCATACTG CTAAATATGA CGGTTTCACA 60
 TC 62

(2) INFORMATION FOR SEQ ID NO: 2090:

30

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 50 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

35

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2090:

40 GAATTCGCTA TCCTGAAATC CTGAGTCGCT GTCCTGAAAT CTGAAATCGC 50

(2) INFORMATION FOR SEQ ID NO: 2091:

45

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 74 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

50

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2091:

CGGGGTTCCT CCGTTCAATT CCCTTTGAGT TTTCACCTT GCGGGTCGTA ATCCCCAGG 60
 CCGGAATTGC TTA 74

55

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 70 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2092:

ATTGTTGGGT ACGGTGGTGG GTTAATAATC CAAACACGTT AAACCTACCGG TTTTAGATAT 60
 ACCTATACAA 70

(2) INFORMATION FOR SEQ ID NO: 2093:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 88 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2093:

TTTTTGGGTC TTGGGTATTA GTTTAATCTC CATCATGGTT AATTGGTATG GTATTGGTAT 60
 TAGTAATCAT GTATGATGGG CTGGGCGG 88

(2) INFORMATION FOR SEQ ID NO: 2094:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 52 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2094:

TGGCCATTGA GGGCGATTAC GTACTACGGC TTGTCGTAGG GACAATTATT AT 52

(2) INFORMATION FOR SEQ ID NO: 2095:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 85 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2095:

AGTTGATGCA ATGAGTGATG CAAGCGGACT GAAAAGITGG TATGAATGAC AAAACTTTAA 60

(2) INFORMATION FOR SEQ ID NO: 2096:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 53 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2096:

ACTTAAATC TAATACGGTA TTTTCAAAA CGAATAAAAG TTACCTCTTG TCT

(2) INFORMATION FOR SEQ ID NO: 2097:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 50 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2097:

AACTTAATAT TGCTACGATA TGAACGGCAT nAACATACTT AGCGnTGrTC

(2) INFORMATION FOR SEQ ID NO: 2098:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 72 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2098:

CAAAATAAGA AATTAATTAA GAAAATGCCA AGATGCCAGA TGCCATCGGC GAAAAGGAAA

TTGCACGTAC GG

(2) INFORMATION FOR SEQ ID NO: 2099:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 78 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2099:

CCACCCAAAC CCAAAAATAA AAGCCAAAA AATTGCCAAG GAAGGAAAAG GAAAATTGTT

(2) INFORMATION FOR SEQ ID NO: 2100:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 208 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2100:

CACCAATTC TTCTGGnGCT GGATCTCGAC CTAAGTCCTG TAATAATTGA CGTTGAACAC 60
 GAATTAATT ATTAAATTGTT TCTACCATAT GCACAGGGAT ACGAATCGTA CGTGCTTGGT 120
 CAGCAATTGC ACGAGTGATT GCITGTCTAA TCCACCATGT TGCATATGTT GAAAACTTAA 180
 ATCCTTTGTT AAAGTCAAAT TTTTCAAC 208

(2) INFORMATION FOR SEQ ID NO: 2101:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 400 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2101:

TAATGAAATT AAGTAAATA AAAATTATT CATGATTGC TTCTATCTAT ATCGAAATAT 60
 TAAGAGGAAC ACCAATGTTA GTTCAAGTAT TTATCGTATT CTTTGGTATA ACTGCTGCAT 120
 TAGGACTAGA CATTTCAGCT CTGTTTGTG GAACAATTGC ATTAGTTATT AATTCTCAG 180
 CTTACATTGC TGAATTAATT CGTGCAGGTA TAAATGCTGT TGATAAAGGC CAAATGGAAG 240
 CGGCACGTAG TCTAGGTTTG AATTATAGAC AAACGATGAA AAGTGTAATT ATGCCACAAG 300
 CAATTAAAAA TATTTTACCA GCTTTAGGTA ATGAATTTGT CACTTTAATT AAAGAATCAT 360
 CTATTGTGTC AACAATTGGA GTTGCGGAAA TTATGTTTAA 400

(2) INFORMATION FOR SEQ ID NO: 2102:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 52 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2102:

(2) INFORMATION FOR SEQ ID NO: 2103:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 400 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2103:

TTTAAGGAGA AAGGTCATTG GTATAATCTT GAGAAAGAGT GGCAAGAGTT CTTAAACTCT	60
GGGAAAGAGG TGAAAAATAT TAAATGGAA GTAAAAATA GCGGTAATAG TCAAGACCG	120
ACTATATTIA AAGTTGAATA TGAAATTAAT GGTGAAAGAA ATATTAGAAG AATATTAAAT	180
AAGTAGAGGT GCCAACATGA CATTGGAAGA GAAGCTTAGC AAAATATACA ATGAAATTGC	240
GAATGAGATT AGCAGTATGA TACCGGTAGA GTGGGAAAAA GTATATACAA TGGCTTATAT	300
AGATGATGGA GGAGGTGAAG TATTCTnTAA TTATACTAAA CCAGGnAGTG ATGACTTGAA	360
TTATTACACC AATATACCTA AGGGTATAAC ATTCCGGTGC	400

(2) INFORMATION FOR SEQ ID NO: 2104:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 53 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2104:

AACCATCATA AAATGTATT AAACGTCAT GGACGCGTC ACCATTTAGT CCT	53
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(2) INFORMATION FOR SEQ ID NO: 2105:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 116 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2105:

AAGCACAAAT TAGCAGAGTG TTTTAATTTA AATGAACAAG TACCTTTACA ATTTTGGAT	60
AATGTAAAAG TTGGTAAAAA TAATATTIAT GnTGCTTTGG AAGAGTTTGC CAACAA	116

(2) INFORMATION FOR SEQ ID NO: 2106:

(A) LENGTH: 61 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

5

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2106:

10 AATTTCAGAA AGAATCATGG ACAATTGAAA GCAAAAAGGA TCATCATTA AATTGAACTG 60

C 61

(2) INFORMATION FOR SEQ ID NO: 2107:

15

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 60 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

20

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2107:

25 GAACCAATGT TAAGCTAATT AATGGAATCC TAACAGCGTT AATCTATTTA AAAAAGCTAA 60

(2) INFORMATION FOR SEQ ID NO: 2108:

30

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 126 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

35

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2108:

ATTTGAAAT GAATCTGTGG AACATTTTGC TAATCATGAG GATAAAATCA TATGATGTG 60

40 AAAGCGAGAA TGGGATTACG TTAAACGTGG GCGCTGCTAA TTTAAGCACC TTATTTAGTG 120

GAAGAT 126

(2) INFORMATION FOR SEQ ID NO: 2109:

45

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 400 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

50

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2109:

55 ATAAATGTTAA AAAAACGGCA ACTAATCTTT TCATACTAAC AATGATTATA TGTACAATAA 60

	CGTTAATAAT GCTAGATAAT TTTAAAAAA TGAAAAACCG TGAATATCAA AAAGAAATAG	180
5	CAGAAAAAAA TAGACATATT AATACATTAA TTGCTGAACA AGAGCGACAT AGAATTGGTC	240
	AAGACTTTACA TGATACGTTA GGGCATGTGT TTGCAAGTTT ATCATTAAAA TCAGAATTAG	300
	CTTATAAACT AATAGATGCT GATGTAGAA AAGTAAAAGC TGAATTATTA GCAATTAATA	360
10	AATTATCTCG TGAATCATTG nACAAAAGTC GAGAAATTAn	400
	(2) INFORMATION FOR SEQ ID NO: 2110:	
	(i) SEQUENCE CHARACTERISTICS:	
15	(A) LENGTH: 61 base pairs	
	(B) TYPE: nucleic acid	
	(C) STRANDEDNESS: double	
	(D) TOPOLOGY: linear	
20	(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2110:	
	AAGATTTAAT ATCGGGGTA ATGTTGATTT TCAAATATCG CGATGTGCTT GTACCACCAT	60
25	T	61
	(2) INFORMATION FOR SEQ ID NO: 2111:	
	(i) SEQUENCE CHARACTERISTICS:	
30	(A) LENGTH: 55 base pairs	
	(B) TYPE: nucleic acid	
	(C) STRANDEDNESS: double	
	(D) TOPOLOGY: linear	
35	(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2111:	
	TATACTAAAT TAGGCAACT TGGCTCATAT AGGTCGAGTT ACCAGACATA TTCGG	55
40	(2) INFORMATION FOR SEQ ID NO: 2112:	
	(i) SEQUENCE CHARACTERISTICS:	
45	(A) LENGTH: 400 base pairs	
	(B) TYPE: nucleic acid	
	(C) STRANDEDNESS: double	
	(D) TOPOLOGY: linear	
	(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2112:	
50	CGAATAAGTT CTGGGCCTTT TGTTGTTTAT TAGCTTGTTT CTGTTTTGAT TGTTCGCCA	60
	TTTGAACAC ACCAACCTTT TAAATTATT CTAGTGACAG GATACTAAA ATATATTCT	120
55	TATGCAATAA TTTCTATTG ATAAGCATTT TCAGATTITA GTTGTAATAA TTGCCTAAT	180

AATTATATAA GAATAAATTC GTCTCTCTT TGACCTATAA TATATTGAnC ATTATAAGCC 300
 ATGCGATTCA TTCCAGACAC AGCCATAAAC TCITGTTTAT CTATCATTTT AAATACCATT 360
 5 TTTAATTGG CTTAATGGGA CAITCGGTAT TAAATCATTT 400

(2) INFORMATION FOR SEQ ID NO: 2113:

10 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 87 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

15 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2113:

TGTTTTCAAA GCATGGTATA AATGCTTTGT AACATAGGTT TTGCCTACAT CAGTATTCTGT 60
 20 ACTTGTGAATA AAAATCCTCA TAAAAAT 87

(2) INFORMATION FOR SEQ ID NO: 2114:

25 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 50 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

30 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2114:

TTTACAAGTT AAATATAnCA CTA AAAAATTT TTAAGTCAAT AAGAAATATAT 50

35 (2) INFORMATION FOR SEQ ID NO: 2115:

40 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 52 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

45 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2115:

TGTGCATAAA ATCTCTTTTAC TTTTGTGAAT TGATTGTTAT CTTTAACAAT TA 52

(2) INFORMATION FOR SEQ ID NO: 2116:

50 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 113 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

55

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2116:

ATTtAnAACC CAATtCCCCA TTATtTTTtTA AAACGGATtC CATGGGTGGA CCATtGGAAA 60

5 TTTtAAAAAA ACCATtGGCCC CATTtCAAAA AGtTAGGATG GCCAAAAAGC CTT 113

(2) INFORMATION FOR SEQ ID NO: 2117:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 93 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: double

(D) TOPOLOGY: linear

15

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2117:

GATTtATCAA CTATtTCCGT ATtTTtGATTA TCTCCATACA ATtTCCAATC CTCTGGCTTA 60

20 TCAATAAATA ATGATAATGG CTTATCTtTC GAT 93

(2) INFORMATION FOR SEQ ID NO: 2118:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 50 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: double

(D) TOPOLOGY: linear

25

30

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2118:

TGATTACCTT GAnACATGAC TtTnCCtGAn TGGTAAATAT TTACAGtTGT 50

35

(2) INFORMATION FOR SEQ ID NO: 2119:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 217 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: double

(D) TOPOLOGY: linear

40

45

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2119:

AGATATAAAA TATAAAAAAT TATtAAAAAGC TATATCCAAT CAAGACTtTA AAGGGtTAGT 60

TCCAATATC AATCAGAAATG ATAATTATn TGAAATATAT ATAATTAAACA ATACTAAAAA 120

50 CTTAATATAT CATTtATATG ATGATAGAGG TCTATGGCTA GCTtTTAATA ATAATGAAGA 180

TTATGCAAGA TATnCTGAAA AATATAATGA TTtAATA 217

(2) INFORMATION FOR SEQ ID NO: 2120:

55

(A) LENGTH: 75 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

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(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2120:

10

AGACTTAGTA AAGTTAGATC ATCTAAGAT GAGCGTAAAA TTTATATTTA TTTAAATAAT
 GGATGATATA TCTAA

60

75

(2) INFORMATION FOR SEQ ID NO: 2121:

15

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 87 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

20

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2121:

25

CACCACCTAC ATTACTATA TAAAAGTAG GAATGGTAGA TTGATTAGA TAAACTGGAC
 GTATCACTTT AAGTGCTTTT TCAAAGA

60

87

(2) INFORMATION FOR SEQ ID NO: 2122:

30

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 70 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

35

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2122:

40

TGTTCTTTAG CTAAAGCTTT AGCTTCTTCA TCACTTTTAA CTTCATAAAA ATCTACACCA
 GTAGCTTCTT

60

70

(2) INFORMATION FOR SEQ ID NO: 2123:

45

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 50 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

50

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2123:

55

TAAATCTAAA AGGAGAAATG CTGAAGATGA GAGAGGTATT TTTGAAATGT

50

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 63 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2124:

TTAAAGGGTA ATTGTTTAA AAAAAGATTA AACCGAGGAC TTITAATTGT TAAAACCATC 60
 CCT 63

(2) INFORMATION FOR SEQ ID NO: 2125:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 78 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2125:

TGTAAACGAC TATTACATGA TCACAATCCA TTCAGCGCCA TTATATAAAG GTACTTAATA 60
 TAGGACATCA TTCGCAGC 78

(2) INFORMATION FOR SEQ ID NO: 2126:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 50 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2126:

TTTGGTCGTG TGCAAGACAG AAGTCGACAT ACTCCAATGA AACATCATGT 50

(2) INFORMATION FOR SEQ ID NO: 2127:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 50 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2127:

TTTGTGTCGA TCGCTTTT CACTTCTTCT GAATGCTCGA AATCATTCGT 50

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 50 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2128:
 TGTCTGAAAT GATCATTAGG ATTGCTCCAG CTCAATGTCA GTnGnAATGA

(2) INFORMATION FOR SEQ ID NO: 2129:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 65 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2129:
 TCCAATTACC TACAAAGTGA GTGCTTTCTT GACCAAGTCA AAAGGAAGTT TTATATTTGT
 CCAAC

(2) INFORMATION FOR SEQ ID NO: 2130:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 61 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2130:
 TTCCAAGGTG TCGTGACTT TCAACACACT GAATATATAC CTGCCAGTGG GCTGGTCATG
 C

(2) INFORMATION FOR SEQ ID NO: 2131:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 92 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2131:
 AGTTCTTCAG TCCTAATGCG GCATGTTGAC CCACCATAGG CGAGGGCATT TTCACCAGGG

(2) INFORMATION FOR SEQ ID NO: 2132:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 400 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

10

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2132:

CCCCTCGAGT TTTT TTTT TTTT TTTT TTTT TTTT CTGGAGCAA ATGAATTTT TTTATTGTAC 60
 TTCAGGGCAA CAAGTCAACA GCTGCAGGAA AACAAAACCA GGTCCAATCT ATGATCTAAG 120
 AGGAGTTCAG GAAAGGCTTG GAAGAGAGAT CCAAGGCCA TCTGGCAAG GGAATCCCA 180
 CATGAGAATT CCTGGGAGAG AGCAGGCCCC AGGCAGCAAG GTCATCTTGC CTGCTTCTCT 240
 GTAAGTTAAT CCTTCACAG GAGCCAAGGC TTCTCTTGAC TGCTGGACA AGAGGGTAAG 300
 GGCCCTGGTT GCAGATTG CCAAGTGAAGT CATCCATGTC AATAGACCAG ATCATGGCTC 360
 CTCCCAGGTT AAATTCCTTA AGAACTGAAC CTGnCTCCA 400

25

(2) INFORMATION FOR SEQ ID NO: 2133:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 50 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

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35

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2133:

TTTCATATAC AACATTACAC TTGTATGAC TAAACCCAAA TTAACGATAT 50

40

(2) INFORMATION FOR SEQ ID NO: 2134:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 59 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

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(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2134:

GTGGCAAGCT TTTTAAAGGT CTGACTGCCA TCGACGGATC TATGTTAACA GGTGGATCT 59

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(2) INFORMATION FOR SEQ ID NO: 2135:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 50 base pairs

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(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

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(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2135:

ATCAAAGTCA TCTnCATGGT CnATCACACC ACGCTTTATA TGGTAATTCT

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(2) INFORMATION FOR SEQ ID NO: 2136:

(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 52 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

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(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2136:

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CGGGATCTGA GGTCCTATC TGCAATCTGC AATCGCTATC TGCAATCTGG AG

52

(2) INFORMATION FOR SEQ ID NO: 2137:

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(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 50 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

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(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2137:

nCTCAACCAC CCACACACA ACACAACAAG CAGCACCCAC ACACCACACA

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(2) INFORMATION FOR SEQ ID NO: 2138:

(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 87 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

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(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2138:

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TGTAATTGTCA TTGTAGACGT GTGTAGCCAA ATCATAAGGG CATGTGATTT ACGCATCCAC

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CTTCTCGGTT TGTACCGCAG TACTTAG

87

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(2) INFORMATION FOR SEQ ID NO: 2139:

(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 77 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double

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(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2139:

TTCACCGTTG CGCAACGTTG AAGTTTGAAG TCGTTTGGC ATGTTGAAAT AAGCACCAGT 60
 5 TACACCAAAA CGCCCAG 77

(2) INFORMATION FOR SEQ ID NO: 2140:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 148 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2140:

ATCTTCTAAC ATTCACCTAG TAGCGTnATT TTTCGTTAT AATGAAATGT TAAGCATATG 60
 20 CGGGATTATAT ATTTTAAAGA GACCTTTAGA TACCATATAT ACCTAGGTTA TTGAAAATAT 120
 GGATACCTTA TATAAGTGAT TTGCAATA 148

(2) INFORMATION FOR SEQ ID NO: 2141:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 50 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2141:

GCTGGCACAT AGATGATCGT CAAGTCGATC TCGCCAGTCT GAAGTCAAGA 50

(2) INFORMATION FOR SEQ ID NO: 2142:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 60 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2142:

TTGTGTGATAA TACTATCACT GTACATGGGT GCTATCAAAA TATTGTGAGT TCGTAAAATA 60

(2) INFORMATION FOR SEQ ID NO: 2143:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 135 base pairs

(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

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(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2143:

GTAGTATATC TTATTAATTG TATCATGAAG CAATTAAAT ATCATGACAA TTTAGTTTGA 60
10 AAAACACACT TTGTGTTGAC GTTGTGTTTT ATGGGATATA GnatAGTAAG GAATGTAAAA 120
TGAAGGAGTG AATGC 135

(2) INFORMATION FOR SEQ ID NO: 2144:

15

(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 57 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

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(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2144:

25 TTTTAAGGTT TGAAGAAAAA AAGTTTAAAA AATTCAAGGA AACATTAAAT TAATTTA 57

(2) INFORMATION FOR SEQ ID NO: 2145:

(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 148 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

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(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2145:

TTTCGAAAGT TTGATAGTCC ACCTTACATT CTCCTACTAT TTTCTGATGT CCCAATACTT 60
40 TATATTATTT AAAGTAATAT AAAAGCAATC TCTTTTGAAG ACATGTTAAC CTAATATTTT 120
TTATATATAA TATATATATA AAATATAn 148

(2) INFORMATION FOR SEQ ID NO: 2146:

45

(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 50 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

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(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2146:

55 GTTAATACAA TACGGTTAAC AGCACCTTTA CGnTAGTTGC TTTnCTGCAn 50

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 68 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2147:
 AATCCCCTCT TTCTCTATT TCCTAAATCA TAGAACTTTT AACAGTAAAA TTCAATCATT 60
 AATACATG 68

(2) INFORMATION FOR SEQ ID NO: 2148:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 92 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2148:
 AGGTCCATT GTAATTATA ATGTTGACTA ATAACATCTA CAGAATTTAA CGTCCCAT 60
 CCTCGCCACT GATTGTAAAT AAACAAACCA TA 92

(2) INFORMATION FOR SEQ ID NO: 2149:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 69 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2149:
 ACCATCCATT AAATCAGGAT CTTACTAAT AAGTGCTAAA TTAGCAGCGC CACGTTTAAC 60
 GTAATCCAT 69

(2) INFORMATION FOR SEQ ID NO: 2150:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 384 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2150:

TCAAAATATA TACGATCACC TTTCTGTAA ATCACAATAT TTTTATTGCG CGCTTCTGGA 120
 TGTGTGTTAA AAAATTGTTG GCCAACTTCA CCTTTAAGC TGGCAAATTG ATAATTTCTT 180
 5 GGTAGGTCAT GTTGAATTAA CCAATGACA TAGTTATAAC AATATATACA GTTTCCATCA 240
 TAATATACGA TTGGCATAAT TTATTCGCTC CTTTAATAGT ACITATAGTC ATTTTTCCTA 300
 10 ATTTAAAAAC AITTAACAA GGTGTGCTACT TGATAAGTCC TCGCGACAGC AAATTGCCAT 360
 AAAATTTATT TTTCAGTTn ATAT 384

(2) INFORMATION FOR SEQ ID NO: 2151:

15 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 83 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

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(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2151:

TGTGTGTTAT CACTATATTT TAAAAATAGT CTATAAGGCT TATCAGATGA AGTAGCTGCT 60
 25 GCGGTAAACAC CACCAGTAAA TGT 83

(2) INFORMATION FOR SEQ ID NO: 2152:

30 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 73 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

35

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2152:

GTATCGTAC ATTTTTCAGC AATTAACCAA GATGGTTACA AATCATTAGA AGAAGGTCAA 60
 40 GCTGTTGAGT TTA 73

(2) INFORMATION FOR SEQ ID NO: 2153:

45 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 50 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

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(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2153:

CCCCCCTCCC CCTCCCCnC CCCCCCCCCC CCCCCCCCCC GCCCCCCCCC 50

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(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 55 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2154:
 TATTTTAGGC TTAGCATTGA TGATGTTGCT CATTTC AATATAGGAA TTAIT 55

(2) INFORMATION FOR SEQ ID NO: 2155:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 68 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2155:
 ATGCTTGCTG ATATAATGTA ATAGCGTCGT GATAACGTTG CTGGCTTATA ATATACATT 60
 GCGAGATT 68

(2) INFORMATION FOR SEQ ID NO: 2156:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 68 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2156:
 TAATCTTTGT CGTCGAAATA CAAACTAACT TTTGAGTTTA ATGATGAAGG TACGCATTGT 60
 GTATCACT 68

(2) INFORMATION FOR SEQ ID NO: 2157:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 400 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2157:
 TCATTCAITTT TCCTCTTTTC TTTTATTITAA AATGTTTCATG GTTGTTTCTC TTAATTCTGT 60

AGATGCTAAA TGGTCAAATT GAATAATTGT TTCTAGACTC ATTTCATAAA TTTCGAAAAA 180
 TAATTCTTCG GGATTACGTT TTTGTATTTC TCCAAATGTT TCATAAGCA AATCAATTTT 240
 5 ATCAGCAACT GAAAGTATTT GGCCTTCTAA TGAATCATCT TTACCTTCTT GCAGTCGTTG 300
 CTTATAAACA TCTCTATATT GTAATGGAAT TTCTTCTCA ATAAAGGTCT CTACCAATTTC 360
 10 TTCTTCAACT TCGGAAAATA ATTTTnnTAA TTCACTACTC 400

(2) INFORMATION FOR SEQ ID NO: 2158:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 232 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2158:

TATTTTTTTC TTCTAGGCAG TGTTAATACT GCTTCAATTT GTTTTTTACT AAATGATAT 60
 TTCTCTATGA TTGAATTAAAT CAATTGATTG TCCATTCTACT TAACCCACAC TTTTCTTAA 120
 25 ATTTACTCAT TTATTTTAAAC ATATTCTAAA ATACTTCTAT TAAGATATGA TACTTAATGT 180
 AATTTTCACT TCCAAAACAT TTA AACGAA TGATTAGGnC ATACTATATT nT 232

(2) INFORMATION FOR SEQ ID NO: 2159:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 60 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2159:

CCGTTTTTCC AAAAAGTTGA TCATAAACCC GCTCCTTTTT TCATCATAAC AAAATAAGAA 60

(2) INFORMATION FOR SEQ ID NO: 2160:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 60 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2160:

CGATTTACTG CACGACACAT TGCCACATCC TGGATGGGCA ATCTTTTCTC TTACCCGCTC 60

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 400 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2161:

ATTAGTTGAA GTTTTGTAGC AATTGAAAGA TATTCAGGGT CAAATAAAAA CGACAAAAAA	60
AGAATATCAA CAGACCAACA AAGAACTTTC TGCTGTAGAT AAAGAAATTA GAAATATAGA	120
AAAAGACCTC AATGATACAA AAAAAGCACA AAATGAATAC GAAGAGAAAT TGTATCAAGC	180
ATATCGATAT ACCGAAAAAA TGAAAACACG TATTGATAGT TTGGCAACGC AAGAGGAAGA	240
ATATACTTAT TTTTTC AATG CGCTCAAACA TATTTTGAAA GCTAAAAATA AAGAATTAAA	300
GGGTATTTAT GGTGCAGTTG CGAAATATAT TGATGTGCCA TCTAAATTAA CTCAGGCAAT	360
TGAAAACAGCA TTAGGTGCTT CATTACACACA TGTCATTGHA	400

(2) INFORMATION FOR SEQ ID NO: 2162:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 66 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2162:

GTGCGTACCA TTGTAATCTT CGTAACTGG GTAATTATTT TGTCTTTCTT CATCATAAAG	60
TAATAA	66

(2) INFORMATION FOR SEQ ID NO: 2163:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 72 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2163:

AGAATGGTAA CATGGTAATA ATAAAAATA AACAGAATAC TAGTTAATAC ACTTTTACT	60
AGAAAAAGAT AT	72

(2) INFORMATION FOR SEQ ID NO: 2164:

(A) LENGTH: 325 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

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(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2164:

10	CGATAATCTG TTTTITTTAAA TCTGTTGCTG TTAGATTAG CACCGATTG TTTAACTTCA	60
	AATAATTTTT ATTACCTTGG GAAGAAAGTG GAACTATTGT AACTGTTTCT TTCTCTTTAT	120
	TGCTTTTGTT ATCTAATATT ACACAAAAAT GATTACCAGA AAACCTCACTT CCAATATTAC	180
15	TCCCTAGTTT TACATATACC ACTGTTCTCT TACATATGA TTTATAATAT CTTTnTTTAT	240
	TGCTTGTAAC ATCGCTATGT ATAGCAATTG GAATAAAACT CTAGCCAATG AGGCATGTnT	300
	ATAACTTTCA TGTTTTTACT GTCCG	325

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(2) INFORMATION FOR SEQ ID NO: 2165:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 121 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

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(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2165:

30	TAAACCCCTT TTGGGTAAAA AAGTTTGGGA AAATTTCCCC GGGGGGAAAG GCCCCCCAAA	60
	AATTGTGCCC CTCnCGGGG GAAAATTAAA ATTTCCTCCC TTTTAAAGG GTTTCCTTAT	120
35	T	121

35

(2) INFORMATION FOR SEQ ID NO: 2166:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 52 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

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(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2166:

45	CGGACAGTTA AATGAAGTGT TCAATGAGCC CAGGATGTTG TAAATGGTTC GG	52
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(2) INFORMATION FOR SEQ ID NO: 2167:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 53 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double

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(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2167:

5 ATTACAGTAA AAAATGGATT AACATTACAA GCGTGTCTTG CTAGAGCAGC CAA 53

(2) INFORMATION FOR SEQ ID NO: 2168:

 (i) SEQUENCE CHARACTERISTICS:

 (A) LENGTH: 114 base pairs

 (B) TYPE: nucleic acid

 (C) STRANDEDNESS: double

 (D) TOPOLOGY: linear

15 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2168:

 AAAGATTATT TATTGTCAGT CATTAAATGT GATTAAATAC GGTACGCTTT GTTTGAATGT 60

 ATTAAATTAC TTGAGCAGC TTTGTCTACT AACTTAACTG CTAAGCTTAC TAAT 114

(2) INFORMATION FOR SEQ ID NO: 2169:

 (i) SEQUENCE CHARACTERISTICS:

 (A) LENGTH: 215 base pairs

 (B) TYPE: nucleic acid

 (C) STRANDEDNESS: double

 (D) TOPOLOGY: linear

25 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2169:

 AAGGAACCCC CCCCCCTTAA AATTTTGGT GGTTTTAAAA AATTCCCTTG GATTATTATC 60

 CTTTATTCCT ATnATTTTCC GTTTGGATTT TCCTGGATTA AATTTCCCCA TTAAGCCATT 120

35 TCCGCTTCCC TTATTTTATn ATTTTCCAAA ATTTCCAAAG GTTCACATTTG GGATTTTGGC 180

 AATCCCTTTT TATTAAATG GCTTAAAAAT TTTT 215

(2) INFORMATION FOR SEQ ID NO: 2170:

40 (i) SEQUENCE CHARACTERISTICS:

 (A) LENGTH: 114 base pairs

 (B) TYPE: nucleic acid

 (C) STRANDEDNESS: double

 (D) TOPOLOGY: linear

45 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2170:

 TATCGTTTTT AGAAATGGAT GTTCTCTCCA AAGATGATGG TATCTAACAT TATCTATTG 60

 GTATCATTAT GCAACnTTA CAAACATTT ACGCAAGATG ATACATTATC CAAC 114

(1) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 76 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2171:

ATCACAGATG AGATAACAGA TCCACTGTAA CTTTACAATA AATAAATGGT ATCATAATTA
 ACACGTAAAT GGGTTTC

(2) INFORMATION FOR SEQ ID NO: 2172:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 64 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2172:

ATTATCACAA AATGTTGACA CGCAAAAAGT TGGTCAGTTA TCAATATGGT ATATAAATCT
 GAGA

(2) INFORMATION FOR SEQ ID NO: 2173:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 61 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2173:

AAAGGCCAAC CAACCAAAGG CAAAATTAA CCGGCCAATT CCAAGGGGTT AATTAAACCC
 G

(2) INFORMATION FOR SEQ ID NO: 2174:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 400 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2174:

CACCCGGCAC TCTCCATCT TTTACCTACT GCCTCTTTG CATTGCCCTG GCACCTCCGT 120
 CCTCAGCCTC CCAGGCTGTA TTCATTCACT CCCTTACTGA GCACGCACCA TACACCAAGC 180
 5 ACCATTCAAG GTGAACCACT CAATGAAGG CCTGGCTCAT TTTAATGGGG GACAATGAGC 240
 ATTTTGTGTA CAATTTCACT GAGTGATGAG TGCTGTGAAG AACTAAACAG GTCAGGTGTA 300
 10 AGTGGCTCAT GCCTGTAATC TCAGCACTTT GGGAnGCCGA AGCAAGTGGG TCATTTAAGC 360
 CCAAGAGTCA AGACGAGCCT GGGGnnACAT AGTGAGAnTC 400

(2) INFORMATION FOR SEQ ID NO: 2175:

15 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 400 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

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(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2175:

ATATCGTTTA AACCATCAAC AAGATTTTAT AGATGCAACT TTTACTGCGC TGAAATCAGA 60
 25 TAGAGCAGCT TTAAGAAGAG TGCCAGTTCA TGTGTGAATT ATAAGTTATA TTCTAAATC 120
 AAAATAAACT GCTATCTAAA ACGCAAAGTT GATCAAAATA TCGATTTTGT GTTTTITATT 180
 30 GAGAAATAT ATAGAGTGT CAATCGATGA TTTATTGTGA ACAGAGCGTT TAATATTAAG 240
 AGACTGGCAT GAAGATGATC TGTTACCTTT TCAAAAAATG AATGCGAATT ATGACGTACG 300
 TAAATATTTT CCAAGTTTAT TGAGTTAnCG nCGTTCAGAA TTAGATATGA GACCTATGGA 360
 35 TGCGGTTATn AAAGATTATG GCCATTGGGA TTATTGCCnG 400

(2) INFORMATION FOR SEQ ID NO: 2176:

40 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 71 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

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(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2176:

TAAATCAAGG AAAGACATTT TAAGGTACGA AGGTTGATAA CAAAAACCA ACAGATTTAG 60
 GGGTATCAGA G 71

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(2) INFORMATION FOR SEQ ID NO: 2177:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 51 base pairs

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(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

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(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2177:

GTGAATTAG GCAGCAGCAT TATTGATGCT GAACTGTTAG AGTCAGATAA G

51

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(2) INFORMATION FOR SEQ ID NO: 2178:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 61 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

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(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2178:

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TTAATTAATG GTAATTACAT ATTCATAACC AAAGGATAAA ATAATTGTGA AATTATTCAC

60

A

61

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(2) INFORMATION FOR SEQ ID NO: 2179:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 50 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

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(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2179:

35

CATTTTACCA TGCAGCAAAAT AATACAGGTG GTGCCGTTAA CAAACGTGAn

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(2) INFORMATION FOR SEQ ID NO: 2180:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 73 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

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(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2180:

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GCCGAACGAA TCAATACCA TACCTAATTG ACTGCAGGCA TGTCATATA GTGCAGTTAA

60

CTGTCTACAA GGC

73

(2) INFORMATION FOR SEQ ID NO: 2181:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 301 base pairs

55

(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

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(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2181:

TACTTTTGGC GATATTCGGT ATCGTTATTA CAGTTATTTT ATATGCAATT AAATTGCCGG 60
 GTTCTATCTT TATCGGTATG ATCATCACAG CAATCGTTGG TATGTTCACT GGATTGATTC 120
 AAATGCCATC TGGTATTGTG GGTAAAGATTC CAAGTATTGA ACCAAGCTTC GGTGCTGCAT 180
 TTGAAGCGTT TAAAGACCCA AGTCAATTAT TAAGATACA GTTCTTAATT GTTATTTTAA 240
 CGTTCCTTAT TATTGATTTT TTTGATACAG CTGGAACATT AGAAGCGGTT GCAnCnCanG 300
 C 301

20

(2) INFORMATION FOR SEQ ID NO: 2182:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 54 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

25

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2182:

TTGATTGCC TTGGCCAGAA TTACTTTTGT TTTGGCGTC ATTGCAAGTT TCTA 54

(2) INFORMATION FOR SEQ ID NO: 2183:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 118 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

40

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2183:

TTAGTnAcAT TGGGACATTT AACTGATCCA CCAGTACTTT TGGCGATATT CGGTATCGTT 60
 ATTACGTTAT TATTGCATAA TGCGGTCACT ACGAGACACC GCACTGAGTC CGATATCA 118

(2) INFORMATION FOR SEQ ID NO: 2184:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 303 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

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AGATAGTTAT ATAAAGATT CATCTTCTGT ATTACATTGA TATTTT TAGG TCCCTGTATA 60
 TAAAAATCAT ATGCCTCATC AACCAATCA CTTTATTTT TGATTGCAAT TTGATGTAAT 120
 ATCTTTTGAC TAAAAACAGC ATTAATCATA TTTCTATTAT CCATAGCTAC GCACCTCCTT 180
 CAACATACAT TTAATGCTTA TCCTGTAAAT ATTATAAnCn ATTTTAAATG CCTATAGACA 240
 TTATTTCAT ACACATACGA TTATAAAATT GTATTGAAC CAAATGATGG TTGCCAAACA 300
 CAT 303

(2) INFORMATION FOR SEQ ID NO: 2185:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 110 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2185:

CCGGGGTTTT GGTAAACCC TCCCAAnATT TTTTAAAGC CCAACCTTG GAAAAACCCA 60
 GGCCACCGT TGAATTTT AAGCCTTGA TTAATCCGT TTGGTTAACC 110

(2) INFORMATION FOR SEQ ID NO: 2186:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 86 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2186:

CCTATATTGT CACCCAATT CATTACGGCA CCTTACCGA AAGATTCTC CATATTTTTA 60
 ATTACTGTAT CTAAGCTTT TTGACG 86

(2) INFORMATION FOR SEQ ID NO: 2187:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 400 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2187:

TTTGCTAGAA AACATACCAC ATTTGCCAAT TATATTATTT ATTCTGATGT TTATTTTCGG 60

TATTTAGAGG TGATAAAATT TGCAACTAT TACAAAGACT AAAATAAAAA TCTTTATTAA 180
 TTATTTTATT GGTATATTAG CCTTGGCGTT TGCTGCTTAT ATATTATTTA AATAAAGGTT 240
 5 AGAGTGAAAC GIGTTTATGA ACTAGACGTT CTAGTATAGT TACTACAGCT TTAGTCAGAA 300
 GGTATCATTG ATAAGATCAT ATTAAATCAA AGAGGCATTG ATATACACTA AAAAGAGGCA 360
 AGATTACCTG CCTCTTTTTA GTnATTAAAT ATACGTGTTA 400

10 (2) INFORMATION FOR SEQ ID NO: 2188:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 131 base pairs
 (B) TYPE: nucleic acid
 15 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

20 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2188:

TTTTATAAAA TATCAGACAT TTTTGTCAA CATACATCTC TTTCGATGTT TCTAATACTT 60
 TATCATTAAAC CATTACACCT TAAAGTTATG ATGTGGCATG TTTTCTTATA TTCATAACAT 120
 25 CAATTTTATC A 131

(2) INFORMATION FOR SEQ ID NO: 2189:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 85 base pairs
 (B) TYPE: nucleic acid
 30 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

35 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2189:

CGTAAATAT TTTGATTAA AATGGAGGGT ATTAATATGA AAAGGTTTAT GTAAATCTA 60
 40 GGGGTATTCC AATATTATAA GGCAC 85

(2) INFORMATION FOR SEQ ID NO: 2190:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 224 base pairs
 (B) TYPE: nucleic acid
 45 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

50 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2190:

CCCAGGAAT ACATGGCATT AAATACCGT TTAATATTTA TAAAGGTGAC TTAATTTTGT 60

55

ATAATTGTTT ATCAGTGATA AAATATTGTC AATAAGAAGA GAATGACTAA ATAATCTTAA 180
 TTTTCAGATA AGTAATTGTGA ACCTTACTGG TCTTATGGTA ATAN 224

5 (2) INFORMATION FOR SEQ ID NO: 2191:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 400 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

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(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2191:

15 AGCTTTTGTA GTTTCCTTAA GCACACCGGC GATTGTGTTA TTACATAAAG GATTCCTTTT 60
 TTTTGTGTGIG AATATGAACC CTCGTGCAAC ATAGCTCGAA TTCCATCTTT TCAACATTTT 120
 20 GTTTTCCAGT ATTATCTTTT TAAAAATTTC TACGGTTCTA GAATTGATGC TGATACTTCT 180
 TTTTGAACCT ATAGTCTTTG TAGTGCTTTT GTATCCGAAT CCTTCTCGT ATTTAATGCG 240
 GTGAATTGTGA CCTGTTATAT TGATAGTnTT GTTTAATAAA TCTATATCTT TTTCTGCGAG 300
 25 TGCTTGTAGT TCTCTATGC GCATACCAGT TAAAGCCTGT ACTTCTAAGA TGCTGGCAAT 360
 TAAAATGCGA TTTGCTTTT GTACTTATT ATCATTTAGT 400

(2) INFORMATION FOR SEQ ID NO: 2192:

30 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 50 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

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(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2192:

40 GACGACTGAG AGGCCGTTGA ATTTGACGTT GCCATATnTT CAAATTTAAC 50

(2) INFORMATION FOR SEQ ID NO: 2193:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 60 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

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(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2193:

50 GTTGTTTTCa TATCAAAACA CCGTAGAATA AACAAATGAAT GGAATTACTT TTGCAATGAT 60

55

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 56 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2194:

CCAGTCACTG ACTACGCTTT CCTCGGTGCT GCGGTGGAG CCATTCCCTT ATTACC 56

(2) INFORMATION FOR SEQ ID NO: 2195:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 69 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2195:

GTAGGGAAAG GAAAACTGC TTCCATTGGG AAATGTTAA CTTTGTTCTT TGGTGATGCC 60

ATTGGATTT 69

(2) INFORMATION FOR SEQ ID NO: 2196:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 55 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2196:

ATATGACACT ATATTTTATA AACATACATT TAATGATTCA TTATACAATT GCCAA 55

(2) INFORMATION FOR SEQ ID NO: 2197:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 71 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2197:

GCCCTAGTTC AATCATATAA CCATCTTTAC GATACGATTG AATCTTTCCC CCCGACGAT 60

TCGATGCTTC A 71

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 54 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2198:

AGTAGCACAA CAGCCATCGG GAGACAGAGA ATCGTTAGAG ATTAATGGAG ATCA 54

(2) INFORMATION FOR SEQ ID NO: 2199:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 400 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2199:

GGCGGTTTTA TATTATCGT TGCAGTTATG CAAATTGTAC TTGGTAGAAG TATAGATTCT 60
 CGTGATTGCG AAAAAGTACT TTAAACGGGA TTGGGAATAG TAATCATATC TAGCTTTATT 120
 TGTGCACTGA CACATAACTT TATATTATTT GCTATATCAA GGTATTTC AAGCAATTGGT 180
 TGCGAATTA TTCCTCTCGT GACTTTAACT TTATTAGCCA AACTAAGTAC AGATAATGGT 240
 AGAGCTCAAG CTATGGCGAA CTATCAAATA TTTTATCAT GTGCACCAGC TTTGGCACCA 300
 ATCTTAGGGA GTACTTTAGG TGGCAAGATG GGGATATATT GGTATTTTAG TTTTTTGGCT 360
 CGTTATATCT ATCGGTATTA TTTTGGGATA hCTnTnTTAA 400

(2) INFORMATION FOR SEQ ID NO: 2200:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 50 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2200:

GGATATGCGA TGGATGACGC ATTGCTATAT OGGCAATTGn GAAGCTGCTG 50

(2) INFORMATION FOR SEQ ID NO: 2201:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 50 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double

(x1) SEQUENCE DESCRIPTION: SEQ ID NO: 2201:

ATCGAATATC ACTACTATCT CThThAAGT ATCTACAATC TCTCCAATCT

50

(2) INFORMATION FOR SEQ ID NO: 2202:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 400 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2202:

TCGACAATCC TAATGCAATT GCTTCATGTG GntGTGGTAG TTCATATTAG AACTGCAAAA

60

GTTGCAGGTG ATCTGAAAAA TTGCTAATAA AATAACTTTT TAATGGTTAA CCCAATTTTT

120

GGGATACAAA TTGATATCAA TAACGATTAA GGACATATTT GATTATGTCC TATTTTTGCG

180

TAAAGATATT TTGTTTTATT AAAAAGCTTA TTGAAAATTA AGAATCTGAC TATAAATAGT

240

ATTTTAAATG ATCGTGATAG CGGATACATT TTTAATCGAA ATCAGGCTAC GAAAAAATTA

300

ATTAATTTTT TCACAATCTG ACTGAATCTT GCTTGAAAAA ATAACATAAA AGCTATAGAA

360

TTAGTATTGG ATTAATAAATG TCTTTTTTGT GAACATCACA

400

(2) INFORMATION FOR SEQ ID NO: 2203:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 400 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2203:

GCGTTGTCCT TTTCGTGACA TGAACAATG TGGAAACAT AATTAAATnn AGGGAAAGTG

60

TGAATAGTTA AAAAATTAGT ATTGTGTTAT AAAAAATAAT TAATACTGTT AGGATTTTAT

120

TAACTAACTT AACGTTGGTT CAAAAATAGT TAAAAAGAGG TTAATTTCATA GCGCAGTATC

180

TCACTTATAT AATGATAGTA GATTGTTTGT ATTACGTAAT TGAATTAAAT ATATAAAAAAT

240

ATATTAAAGAC AAATTATATA ATAGATTGGG AGAnTAGTAC TGTGAAATTA AAAACGTTAG

300

CTAAAGCAAC ATTGGCATTA GGCTTATTAA CTACTGGTGT GATTACATCA GAAGGCCAAG

360

CAGTTCAGGC AAAAGAAAAG CAAGAGGGnG TACCACCATT

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- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 136 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2204:

GTTATTTTGT ATGTTAGTTC TTTAAATAn ATATAGATAT TAAATATTTA TTTACGAAT 60
 TGTTAAGTAA AGAAAAAATA TTAATCAATC CGGGTTACAT TTATGGCAGT AAAGAAAAGA 120
 GTATAAGGCT ATCTTT 136

(2) INFORMATION FOR SEQ ID NO: 2205:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 400 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2205:

TTTTATTTT TCGCAATGAA AAACAATCTT TCTGCATCTT CATTATGTTT ATCTATATTA 60
 AAATCAGTAA ATGTTTCAAC ATGTTTAAAA CCAACTTGAG CTAACCAAGA CAAATATGTC 120
 TTTTCATCAA ATGTTCTCTG AAAATGAGAC TCATCAAATC TTGAATATGT TTCATCTTCA 180
 TGTGAATGA AAAATGTCAT ATCATGATAA ACACTTAAAG GTAAATCTCC TTGCACAGCA 240
 TCCCATGCTA AAAAAATGTC CCGTTTATCA TCAATATAAC TTGATTATT AAACAAAGTC 300
 ATCATTTTAT AAACAGTATG TACATCAGAA ATAAATACAC CTGAATCAGT CAGATGATGA 360
 TAAACATTGA TGAATGTTTC AATCACTGCA GTTTCATCTT 400

(2) INFORMATION FOR SEQ ID NO: 2206:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 379 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2206:

TTGAATATCA TATAAAACA TCAGGTTCAG AGTTGACTAC TCTTAATAAT ATAAAAATAA 60
 GAATTAAAAA CATTAACGA TACTGCTCTG AGAACTTGCT TTAAACAAA CTTGATACAA 120

GTCAACTCGG AGATATGAAA GGAGCHATTA AATATGCAGT TAAATTTTAC AATTATCCAA 240
 ATGAATATTT GTTAACTAAT GTCAAAATTC CTAAAAGAAG AAAAAACAATA GAGGATATCG 300
 5 AAAAAGATGA ATCTAAAAATG GTACCACTAT TTAGAAATGG AACCAAGTCC TACnGATACG 360
 TGATCATATA CTAATGGAT 379

(2) INFORMATION FOR SEQ ID NO: 2207:

10 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 137 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 15 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2207:

20 CATCTTGGGA CGTTTTAAAA AGTAACGTAG CGAAGACTAT TGAACAACA ATGAGAACCA 60
 ATGCTAGAAG GATCAAAAAG TATTTTAAAA ATTTATTCAT GATTGATGCT CCTATATTAA 120
 ATTTnTGTTA AATCATA 137

(2) INFORMATION FOR SEQ ID NO: 2208:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 72 base pairs
 (B) TYPE: nucleic acid
 30 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2208:

35 GCGCCGCTCT GTTCATTTTA CCTAAATCCA ACGTTTCAGG AATAGATGTT TTCAAACCA 60
 TTGAAATGG AT 72

(2) INFORMATION FOR SEQ ID NO: 2209:

40 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 52 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 45 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2209:

50 ATGTAGCAAC TAAAGATGAT AGTGGATAGC GACACGGTCA ATAACTGCC TA 52

(2) INFORMATION FOR SEQ ID NO: 2210:

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- (A) LENGTH: 206 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

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(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2210:

10 TTTTATTGT TCTTTTAA TAAGAGGAA GTGAAGTTGT ATAAAAATGT ATTAATATG 60
 CACTTTTAT ACATTAACGA TTCATATATG TCTATTATGT ACCAAATTTA TAAATTGTAT 120
 AATTTTCGAA CTGTTAAAT TCGAAAAATA TCACATAATAT ATnTAGATCG ATGTGTAAAC 180
 15 TTACGTTCTA nTAATTTAAT GTTGCA 206

(2) INFORMATION FOR SEQ ID NO: 2211:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 60 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

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(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2211:

ACGATGTATT TTGATATCGT TACCAAAGTC TTTTAATAAC TCATTTTCAT CTAAATAAAT 60

(2) INFORMATION FOR SEQ ID NO: 2212:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 331 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

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(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2212:

40 TGATAAGGTT TGTCCTATCG CTATTGAAA TGATGCATTG TAAAAAACTA TCATTGTGTG 60
 GTAATATCTT AGTTCGATGA CTTTCTTTCC AATCTTTCCG TGTCATAGAG ACAAGATTTT 120
 TTGTAGCTAT CTTAGTTGCT TCTTGAATGT TCATTGTGTA TTCCTCCTTT TAAGATGTTT 180
 45 GntTTCTTT AAATGCTAAA ATAATTGATT TCTTTTATC ATTCTGTGAAT ACGAAATTTT 240
 CGTATTCATT ACCTAAAAAA ATATCATCAT ATTAAACATT AAAAGCACTC ATATACTTAG 300
 50 AAAGTAACT AAcnTTAATG GntGTAGAGT C 331

(2) INFORMATION FOR SEQ ID NO: 2213:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 61 base pairs

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(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

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(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2213:

AGCATAAACC AAAAGATGCG GATATACTTG AACGCGTCAA AGATATACTT AATAAAAAAG 60

10

A 61

(2) INFORMATION FOR SEQ ID NO: 2214:

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(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 56 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

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(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2214:

TCTATTGAG TTTACATTG ATTAATGAA TGACAATTAT ATGAACCTGA CTTGGT 56

25

(2) INFORMATION FOR SEQ ID NO: 2215:

(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 400 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

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(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2215:

35

ATACCACTAC TATACAGTTA AATTAATATA CGTTAAACT TTAATCCGAT ACATTGGTTA 60

AAATGATGTT CCTCGCTGGT GGATCGAGAC ATACTTCGCT CTGACTTCTT TAGTCAGTTT 120

TTTTTCAGCT TTTTAGGTGT AATCACTGAC TTGTGTACAT CACGTCAAAT TTACAGTCGC 180

40

TATTATCTTA ACTTATCTAC GCTTATCACA CATCAATTCA GATATTATAT TGCAATTGGCG 240

nCTATCACTT TGAACCTGCT GTGACTGGAA CTACTGGCTG TCAGAGCGA GGGCTGATAA 300

TGAGCATAAA GCAACATATA AGTAATACGG CCGAATATGT AAATTCGGCA GCTTTAGGCA 360

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ATGCTGCCCC GGCATGACTA GnACATTCAC AAGAAGCTCA 400

(2) INFORMATION FOR SEQ ID NO: 2216:

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(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 133 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

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(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2216:

TTTTTAAAAA AGGGGTTAAC CAAAGTTTGT GAACCCCAA AAATTCGGGA GTTAAAAAAA 60
 CCCCCAAAAA TTAAATTAAC CGGTTATTCC GTTCCAGGAG CCAAATTTT ATGGTTCCAA 120
 TTnCCAAAGT GGG 133

(2) INFORMATION FOR SEQ ID NO: 2217:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 64 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2217:

TACTCGTACC ATTAACCACT CTGATTAAACC ACAATACTAA GGTATTCAT ACATCACTGA 60
 CATC 64

(2) INFORMATION FOR SEQ ID NO: 2218:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 82 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2218:

TATTCTATAG AATATGGATA ACGTTTAACA TGATGTAGAG TATTCATCAT TGTAACACGT 60
 CAATTGATA TGTGAGATTA AC 82

(2) INFORMATION FOR SEQ ID NO: 2219:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 70 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2219:

TTTGACGCAA TGATTAGCT GTAAATATGC AATCTAAAGG AAAGTACCAC TTATGAGATG 60
 TATTAAAAAG 70

(2) INFORMATION FOR SEQ ID NO: 2220:

- (A) LENGTH: 66 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: double
- (D) TOPOLOGY: linear

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(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2220:

10 AAAAATTACC CCAAAGAATT GAAAATTGT TGTTCGGTT ACCGGGTTTA AGATTAATCC 60
GGTTGA 66

(2) INFORMATION FOR SEQ ID NO: 2221:

- 15 (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 54 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

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(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2221:

25 GATCGCAACC AAAATAATGG TCTCCTGGA TTATTACTTT ACCAGCTGGC ATAC 54

(2) INFORMATION FOR SEQ ID NO: 2222:

- 30 (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 50 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2222:

35 GTGTGCTAC AGCTAaCATT TCATATTIAA CGnGTTGTGG TATTCTAAA 50

(2) INFORMATION FOR SEQ ID NO: 2223:

- 40 (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 50 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

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(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2223:

50 AATGGGGGnA CCCAGnTGA GTATGTCAT CATATCGGTA TGTGATACAT 50

(2) INFORMATION FOR SEQ ID NO: 2224:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 54 base pairs

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(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

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(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2224:

GTAGATGCGC CCTCATATGG ACAAAGATAA AGTATCAGCA GATTGGACGC TTTA 54

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(2) INFORMATION FOR SEQ ID NO: 2225:

(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 63 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

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(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2225:

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CGAGACTTCA CTTTGACTAA ACGCGTTAAG AATTAGATT ATGCTTACGA TGAAGAAGAA 60

TTA 63

(2) INFORMATION FOR SEQ ID NO: 2226:

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(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 55 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

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(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2226:

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TGGCCATTTT TAATGGGGGG AAACCTTAAA AAGGGGTTTT TAATTTTAAA CCAAG 55

(2) INFORMATION FOR SEQ ID NO: 2227:

(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 131 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

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(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2227:

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TCCATTGGT TGCCTTCITT AAATAAACCT TGGATTATGC CTTTCCCTCG GTTAATTAAT 60

GGGACCAGGG GCCAAAAATA CCCCTTTTA AATATAATT CCCAAAATCC ATAGTTAAAT 120

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AATCCATTG C 131

(2) INFORMATION FOR SEQ ID NO: 2228:

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(A) LENGTH: 350 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

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(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2228:

10 CCATCTGTGC TTGTTAGGC GCTTTCGGCA TCACGGTGAT GGTTCGCGAC AGATCCGCCA 60
 TCCGCGTGAA TGGGAAGCCC GCGTTAaaaa GCGCGCTAGA TCCGGCATCG GGATGAAGTG 120
 GTAATACTTC GAGAAGTCGA TGGTGGAGTC GTCACCAATC ACCACATGAT TCTGCACCGG 180
 15 CTGGAAGSTA ATACAGTTAT CCACCGAACC GCCCGGCATC GGSTTCATAT ACTCAAAGTC 240
 GAAGCGCACT GgntTTGGTC GCGCCGAGTT TCAGCGCCGG AATAGAGACA TCTGTTTTGC 300
 CATCCAGCAA ACCTTGTAAAT ACCGGaTCC GCAGCAGCAG GCGGTTTCGC 350

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(2) INFORMATION FOR SEQ ID NO: 2229:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 58 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

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(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2229:

30 AACTAAAAAT ACTATATAAA AAAGGTTGTT ATAATTAAAT GGATATAAAT AAAAAAGA 58

(2) INFORMATION FOR SEQ ID NO: 2230:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 50 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

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(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2230:

45 GGGCGAAAGC TGGACGGAGC CAACGTCGCG TGAGTGGATG GAAGGTTCTT 50

(2) INFORMATION FOR SEQ ID NO: 2231:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 50 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

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AGCCATACGT GGTAAGCACA TGCTAAATT GCCAGCCTGA AAATGTTTAG

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(2) INFORMATION FOR SEQ ID NO: 2232:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 132 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2232:

TGTATCATTT TGGCAAAATC ATAATCTTTA TCGTGAATA CCACTACTTT TAAGTTTAAT 60

GATGAAGGTA CGCAITGTGT AATCACTTCA TCTAACTTTT TTAAATCAGG TGTATAGTT 120

GAACTTGGnG GT 132

(2) INFORMATION FOR SEQ ID NO: 2233:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 78 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2233:

GATCTTGAAG CAGTTGAAAC ATATGTATCA GATGCATTAA GACAAGTACA CTTACAATCA 60

GACATTTTTG CTGTATCA 78

(2) INFORMATION FOR SEQ ID NO: 2234:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 50 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2234:

TTTAGGCACA GACGTAATA AGCTACAATT TTCATAAAAT CATCTCCTTn 50

(2) INFORMATION FOR SEQ ID NO: 2235:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 54 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2235:
 ATCCTGGAAA ATCTGATAAG ATATCTTGGG AATAACTAAT ACCAATTCCT AAAA 54

5 (2) INFORMATION FOR SEQ ID NO: 2236:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 54 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

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(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2236:
 GGGTGATGGT CATTGACAAA GTCAACTTGT GATAAGCCAT GGATATTTTT CGTT 54

15 (2) INFORMATION FOR SEQ ID NO: 2237:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 50 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

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(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2237:
 TTATTACTT TAAATTCTC AATCTACAGT GTAATCTTAT TTCTATTAT 50

25 (2) INFORMATION FOR SEQ ID NO: 2238:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 74 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

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(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2238:
 CCTTAATGGG TTTGGGGGG GGGCCCCCCC GGCCCAAAC CTTGGCCCA ATTGGTTCCT 60

35 GGGTTAAGGA AAAA 74

40 (2) INFORMATION FOR SEQ ID NO: 2239:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 71 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

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CCACCCATGG CGCTTGACAA AATATGGATG GAACATAACC ACACCGTCCA AGTTCACTGT 60
TAGCACCGTG T 71

5 (2) INFORMATION FOR SEQ ID NO: 2240:

(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 64 base pairs
(B) TYPE: nucleic acid
10 (C) STRANDEDNESS: double
(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2240:

15 CAGCTAGGTA GTTAGGGATT CGACTCGTAA AACGGATTAA TAGGTTTAT AAGAAGGGGG 60
TTTG 64

20 (2) INFORMATION FOR SEQ ID NO: 2241:

(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 58 base pairs
(B) TYPE: nucleic acid
25 (C) STRANDEDNESS: double
(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2241:

30 CTTGACACGT ACATCTAATA CGACAGTCTG TCGTTTAAA ACCTTTTGGG TCAAACTG 58

(2) INFORMATION FOR SEQ ID NO: 2242:

(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 50 base pairs
35 (B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

40 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2242:

GACTCATCAC CGnTTGTTAA GAnATACAAT TTATTACCCA GCAnTTAACA 50

45 (2) INFORMATION FOR SEQ ID NO: 2243:

(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 71 base pairs
(B) TYPE: nucleic acid
50 (C) STRANDEDNESS: double
(D) TOPOLOGY: linear

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AAATTGGAT TGGTGGAAA TTACAGTTA AAATTTAAAG GGTGGATGGA AAAATTTTATG 60
 GAACCTCTAA G 71

5 (2) INFORMATION FOR SEQ ID NO: 2244:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 50 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

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(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2244:

15 GGGGGCCCC TGGGGTTTG GTTTTGGGG GGGCCCCCTT TTA AAAAATT 50

(2) INFORMATION FOR SEQ ID NO: 2245:

20 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 52 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

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(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2245:

30 TTATAATTTT TGAATAGTA AGAGGGAAGC CTAAATTAC CAAATGGATT TA 52

(2) INFORMATION FOR SEQ ID NO: 2246:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 55 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

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(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2246:

40 ATTAGTTGAA AAGTACAATA TTCCGAAGT TACCAATCGA TACAGGTATT ACAAG 55

(2) INFORMATION FOR SEQ ID NO: 2247:

45 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 50 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

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(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2247:

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(2) INFORMATION FOR SEQ ID NO: 2248:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 107 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2248:

GGGAAGGTAA AACTCCTGC TTTTATTATA AGTATTGCT CTCTATTGCT ATATTAGTAG 60
 AAACCGTAAA ATCAGTCATT CACATACATT nTGAAACATC TAAATAG 107

(2) INFORMATION FOR SEQ ID NO: 2249:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 168 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2249:

GTTCGATACC TGAACATAAA TAACTATTCT TTAAGGTTA AAAACCAACC ACTAGTGGCC 60
 ATTGGGGATT AAAATTCCAA CCTGGGCCGG TCCATCCCCA TGCTGGGTAA AATGGGGGAG 120
 GGAAAATCCT TATTAGCCAA AGGATTTCCT ACCTAATAAT AGGGGGAA 168

(2) INFORMATION FOR SEQ ID NO: 2250:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 50 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2250:

TTTAGTTGTG ACATACTGAG AACTGTAGTA CTTAGTGChA TACCAAGGGG 50

(2) INFORMATION FOR SEQ ID NO: 2251:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 59 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

GCAGAACATA CCACGTGTCG CTGATTACCA ATACAGTAGA TCAAGATGGA CTCGATTGC 59

(2) INFORMATION FOR SEQ ID NO: 2252:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 52 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2252:

GTTTGTTGTTT TAATTTTAAG GGGAGGGAT TTTTITACCA AATGGGAATT TT 52

(2) INFORMATION FOR SEQ ID NO: 2253:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 80 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2253:

AGTGTAATTA GAAAGGCAAG TACACCTGTT TAAAGTTTAT CTTCTAAGAT TTGTTTACTT 60

TAGAACTATA GCAGTTAATC 80

(2) INFORMATION FOR SEQ ID NO: 2254:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 66 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2254:

GTAAATGACA GAGGAAATAT AACAAATGATT AATAATGTTA CAGCATTAC TGCAAATATC 60

TACTAT 66

(2) INFORMATION FOR SEQ ID NO: 2255:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 50 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

ACATGTGTTA ACTCTTTGGC AATATATCCT GTTCTTCTT CTAATTCACG 50

(2) INFORMATION FOR SEQ ID NO: 2256:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 69 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2256:

AATCTTTTAT AGGAAAGAAA GAAGAAGATG TTATCAGTTG CGATTATCGG CCCAGGCGCT 60
 GTCGGTACA 69

(2) INFORMATION FOR SEQ ID NO: 2257:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 64 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2257:

TAGCGGGAGA TAGAAAAACC ATTCCGCATT AGCTTTGGTC AAGTTGGGAA TGGGTAAAAA 60
 AATA 64

(2) INFORMATION FOR SEQ ID NO: 2258:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 106 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2258:

GGTTAAGGTA TGGCGAAATA TCTCCAACAA CACTTCAAAA GGTTCAGAA AATAGAAGTC 60
 GACTGAACAA TGTCATTAC ATGTGTGCGT CATGCACACC nTATGT 106

(2) INFORMATION FOR SEQ ID NO: 2259:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 79 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2259:

CGGAATAACT GACTATGTAT CATTGTATGT TATTAACATC AATATTTTGG GTTAAATGAT 60
 5 ATGCTAGAAA TAAAGCATA 79

(2) INFORMATION FOR SEQ ID NO: 2260:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 50 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2260:

GCTGGnTGTT AntGGCAGAG CATGTGAGCT GGATAATCAG TTGGAGAGGC 50

(2) INFORMATION FOR SEQ ID NO: 2261:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 50 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2261:

nCCATTAATG ACCGAGATTA GTGAGCATGC ACAAATTGTT ATGSTAGGAT 50

(2) INFORMATION FOR SEQ ID NO: 2262:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 51 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2262:

AATGAACCAC ATAATGACAA CTTGAATGAC AATATGAATA TGATGTCAAC A 51

(2) INFORMATION FOR SEQ ID NO: 2263:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 55 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

CATTAGGTGC TTATATAAAT TACTTIGTGG TGGCTCCAAA ACTTCGGGTT AAAAC 55

(2) INFORMATION FOR SEQ ID NO: 2264:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 50 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2264:

TTTChTCCCC CCCCCGGGT TTTTGTGCC CTTTTTTTTT TTAAATTTCG 50

(2) INFORMATION FOR SEQ ID NO: 2265:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 52 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2265:

TCATTATAG AGGTGTAAG ACATAAGGGG AGCTTAAC TGAGGACCTA CA 52

(2) INFORMATION FOR SEQ ID NO: 2266:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 55 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2266:

AGATGATGCA ATAATGGTGC AGTATAGAAG TACTGAGCAA TGCAAATTTT AGACG 55

(2) INFORMATION FOR SEQ ID NO: 2267:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 51 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2267:

GTTCATCACA TTTATTACAT TCAGCGTTGG AATCAGTACT GGGTTATCAT G 51

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 54 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2268:

CTGTTGACAA CAAATTAAAA ATGACACAT GTCGTAGTTA TAGTTAATTG ATTG 54

(2) INFORMATION FOR SEQ ID NO: 2269:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 312 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2269:

AACCAAAAAG AAAGCAAGGT CAAGGAAATT TCAGCGnGAC GTATCTTTAG TTTTGAATAA 60
 GCATATTAAT ATGGTGATAA TATGCAAGAn AACCTGTTTA TTCGATTCAA TGAAATTATA 120
 TTATTAATAT ACTTAATCAG TATCATTTCG TATTTTATG ATTTTGACA AAAAAGTCAT 180
 AAGATTAGAA GTTTAGGCAT ATATTTATTG GGGATTGTT GGGTTTACA AACAACTCTCT 240
 TTATCTATTT TTATTATACA AACTAGACAT ATTCCATTAG GgCTATTTc AGATGTATTc 300
 TATACTTTAA GT 312

(2) INFORMATION FOR SEQ ID NO: 2270:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 58 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2270:

GTTGATGGAT TCtCTTGGTT TGGTGTAGTC ACAAItTCTG AACTGGCCCT TGTTTACG 58

(2) INFORMATION FOR SEQ ID NO: 2271:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 50 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2271:

CGTTCAGACG CTAATCAGG CACCAGGTTG TACAATTGTC CTGGTTCCTC 50

(2) INFORMATION FOR SEQ ID NO: 2272:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 58 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: double

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2272:

CAGGTGTTGG TAAACATTT GAGATGCTTT CAAATGCCAT TGAATATTT CAAAGTAA 58

(2) INFORMATION FOR SEQ ID NO: 2273:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 400 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: double

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2273:

TTATAAATTG GIGTAACAAT TTCATACACA TGATCATTCT TTGATTGAGG TAAAAATGAT 60

TCTACTAAAC GIACAGGTTT ATGCTTCTTA TATTCTTTCA TCAATAAATA TCTATGATTA 120

GCTAATGATA AATTAGTAG AAGCTTGTTA TCTCCATAAA CTAAATTCAC GATATTAGGT 180

ATATTGAATT GTTCTTGATA TTTCAAAAAT TGGTGATCCC ATTCTTCATT TTTAGGTAAA 240

GGAATACCA TCTCGTTAAT TTTCCAATAT GCTGGTTTAA GAATGACATT TTTATATCTG 300

ATTCGTGGTG AATAACTAAA TGAATCAATA CTCACATCAT TCATAGGTTC AATGCATTC 360

ACAGATTCCA TTGAAATTTT TCGTAACAAT CGATATnAAT 400

(2) INFORMATION FOR SEQ ID NO: 2274:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 50 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: double

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2274:

GGGTACAAAT TTGnTGATGA TAGAAAAGTT CGTATCGCTA GAAAGTCTGG 50

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 65 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2275:

TGATTTACCA GTTGATTACG ACAAGAAGA ATTTTCAAGA ATTGTTGAAG CATCAAACG 60
 CATTA 65

(2) INFORMATION FOR SEQ ID NO: 2276:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 55 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2276:

ATGGGGTTCC ACCAGCAGTC AATAATCCTG TTGGGATAAA TGCCAATACT GTCGA 55

(2) INFORMATION FOR SEQ ID NO: 2277:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 76 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2277:

TAATAAATCA CGTGCATTTA CGTCACTAG CTTTCATCTC CTCATTTTIG CTTTCAAAT 60
 TTATTAAGTA TGAATA 76

(2) INFORMATION FOR SEQ ID NO: 2278:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 65 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2278:

GTGGCTTTGT CTGTGTTATT GTAGTTTGT TTCGCTGCGT CCAGCTTTGC TGCITTTCCC 60

(2) INFORMATION FOR SEQ ID NO: 2279:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 69 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2279:

TTAAGTGCCA AAGTCCTTGG TAGCCAGAAT GAACCACCAA CCTCCATTTT TCCAAAAATG 60
 GTCTTACCT 69

(2) INFORMATION FOR SEQ ID NO: 2280:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 67 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2280:

GGATGGAATT GGGTTAAGAA TAAAAAGGT AATAATTGAG TTTATGATAA TAATAATAAT 60
 ATTGAGA 67

(2) INFORMATION FOR SEQ ID NO: 2281:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 76 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2281:

TTGTTACTTC GGCACGGATA AATCCACGTT CAAAATCAGT ATGAATGATA CCAGCACATT 60
 GAGGTGTCAGT CATACC 76

(2) INFORMATION FOR SEQ ID NO: 2282:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 137 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

AACCCAGAAG ACTTATTATT AGAATCTTAA TCCACAACAC AAAATAGITT ACTATTCTTA 60
 AAAGCGGGAT TAAATCAATA ACAAACAGCA GTAAGATTAT TTCCTAGTCG AAATATCTTA 120
 CTGCTGTACT TTATTtt 137

(2) INFORMATION FOR SEQ ID NO: 2283:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 52 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2283:

ACAAAGATT ACTATTTAAC TAATTATAT GAAGAATAGC TTCCCTAAT AA 52

(2) INFORMATION FOR SEQ ID NO: 2284:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 51 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2284:

ACTCCTGCAT ATCACAATA GATTAAATAT ACATCAAACA GATATAGTAA A 51

(2) INFORMATION FOR SEQ ID NO: 2285:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 77 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2285:

CTAACATGTG TGAACGATAT GCAAATTCAA TATCTCATTC ACGCTTTCGA CTTTATTACT 60
 ACAATCAACG TAACTAT 77

(2) INFORMATION FOR SEQ ID NO: 2286:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 58 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2286:

5 AAACCTGTAT TTITAATAAA CAATCGCTTG GACCTATCA CTGCAGCTCT TCTGGGAC 58

(2) INFORMATION FOR SEQ ID NO: 2287:

(i) SEQUENCE CHARACTERISTICS:

- 10 (A) LENGTH: 204 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

15 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2287:

AATTCATAAA ACCAATAAAT AAGAATTTTA TAGTAAAGG AAATGGAnTA GAGTTGGCAG 60

ACTIATACAA TATTAATAAC AAAGAGCTTT TCACGATTAA AAGAGGAATT AATACATCTT 120

20 TATCTCTTTA TAGTCTAGAA CAGGAATATA ATAACAATTA ACGCCTTAAA ATATCCAGAA 180

TCATATAATT TTGAAGAATT AATA 204

(2) INFORMATION FOR SEQ ID NO: 2288:

(i) SEQUENCE CHARACTERISTICS:

- 25 (A) LENGTH: 50 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
30 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2288:

35 GCTCGTAAGG CGTCAACTGT GGCCTTGGGT GCTACATGTA AAGGTTACTT 50

(2) INFORMATION FOR SEQ ID NO: 2289:

(i) SEQUENCE CHARACTERISTICS:

- 40 (A) LENGTH: 53 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

45 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2289:

TCGCTTCGGT GGTAAAAATG TCGTGGAGGT CCCGTTGCAG ATGTTTAA ACG 53

(2) INFORMATION FOR SEQ ID NO: 2290:

(i) SEQUENCE CHARACTERISTICS:

- 55 (A) LENGTH: 68 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2290:

TTGGAGGTCA ATGTTGGCG TAATCTTCAA TGGTTCCGTA CACAATTGCT GCGGTTGACA 60

5 CACATACG 68

(2) INFORMATION FOR SEQ ID NO: 2291:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 53 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: double

(D) TOPOLOGY: linear

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(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2291:

TTGCACGAAT TAAACAAAT CCTTTTATAT GTTGAAGTGT ATTCGAGATT AAA 53

20 (2) INFORMATION FOR SEQ ID NO: 2292:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 63 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: double

(D) TOPOLOGY: linear

25

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2292:

ATCAATTGTC AACATCTAAT ATTCACTACC AATTATATCG CCACATGTTT TTTAGCAGTA 60

30 ACA 63

(2) INFORMATION FOR SEQ ID NO: 2293:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 55 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: double

(D) TOPOLOGY: linear

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(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2293:

CGACTCAGGT CCATCAAGAG AGACACATTT CGACTACAGG TTATTACTTC TTGTA 55

45 (2) INFORMATION FOR SEQ ID NO: 2294:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 61 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: double

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(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2294:

AAATTTTGGT TAATTTTAA ACCAAAAAC CTTGGAAGGA AATGGCCCTT TTCCCAATT 60
 T 61

(2) INFORMATION FOR SEQ ID NO: 2295:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 158 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2295:

AATCTTAAAA CCTATGGCGT CTATTACATT CCCAAACCT ATTTTCAGnA ATGTTACCAA 60
 TTAAGACTGC CGGGGTATGG ACCAGGGTAC CAGGCTAAAA ACTGGAAGAA AGGAAGGAAT 120
 TTTAGAAAAT AATTTATTAA CATGGACCAG GTAACATA 158

(2) INFORMATION FOR SEQ ID NO: 2296:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 68 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2296:

TGTTCCAACG ATGAATGTT GCATGCTTTG TTGCACTGAA ATTGATGAGT TGCTACTTGC 60
 AATCCTAG 68

(2) INFORMATION FOR SEQ ID NO: 2297:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 72 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2297:

GTAGGGATT TTTTAAACG GGATAGCCCA ACCAAAATT AATTAAATTT GGGTTTTTGG 60
 ATTGAAGGAA TT 72

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 213 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2298:

AAAAATnTA CCAGGTGAAA AATTATTTTG GTAGGATTTA AATnTAATGG TTAAATGGT 60
 GGTTTATTAC CTAATTTAAA AATGGTTAAA AGGGCCTTTA CCATTTTTAA AATTTAATCC 120
 GCCTTTTGGG AGGGGGATTT TAGGGATGGT CCAGTTAGGA CCCCATACC ACTGGAACCC 180
 AACTTAAAT TTGACCAAT TTCTGGAAA AAA 213

(2) INFORMATION FOR SEQ ID NO: 2299:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 159 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2299:

TATTTTTAAA GGAGGTAAT AATCTTAATT TAAGTCATT ATTTTACTTT TCATTATAAA 60
 TATTTAATGT TACTTTCITA TTTAGATAAC AATAAAAAAA TATAATCTCT nAAACCCAA 120
 TGAACAGCT GCTCCAAACA ATTAGTCTT CTAATTGAA 159

(2) INFORMATION FOR SEQ ID NO: 2300:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 65 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2300:

ACAAGGTCAT TCGGATTGA CTTTGTTTCA ATTGTTAAAT TTGCTCCAT CAATTGTCTA 60
 ATTCT 65

(2) INFORMATION FOR SEQ ID NO: 2301:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 50 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2301:

5 TTTATTCTTA TTTAAAAACC CAnTGAAAGT AnTCTTnCA TTAnTAAAAA 50

(2) INFORMATION FOR SEQ ID NO: 2302:

(i) SEQUENCE CHARACTERISTICS:

10 (A) LENGTH: 62 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

15 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2302:

GAGATATATG CATGAGCTCT ACGACTTCTT TAGGTTTCAT GCGACTATC CTGGCAGGGA 60

20 TG 62

(2) INFORMATION FOR SEQ ID NO: 2303:

(i) SEQUENCE CHARACTERISTICS:

25 (A) LENGTH: 56 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

30 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2303:

ACCAATCCCG TTGTTTTGCT TTTTAAAAA AAGGAAATTC CAAAAATCCC CCATT 56

35 (2) INFORMATION FOR SEQ ID NO: 2304:

(i) SEQUENCE CHARACTERISTICS:

40 (A) LENGTH: 53 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

45 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2304:

TTTAAAAACCC AACGGGTTTG GTTAAATGG CTTGGGCTTT TCCAAACTT GGC 53

(2) INFORMATION FOR SEQ ID NO: 2305:

(i) SEQUENCE CHARACTERISTICS:

50 (A) LENGTH: 60 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

55

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2305:

CGAACAGGTT GCCACTGTAA GATCTGGTGG CATTTAATGG CAATCGTATT TTATTGGAG 60

5 (2) INFORMATION FOR SEQ ID NO: 2306:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 74 base pairs

(B) TYPE: nucleic acid

10 (C) STRANDEDNESS: double

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2306:

15 CTTTATAATG GCGGCGCACT TGGCATCTCT GCATTCAAGT ACACGCGGTG GCAACACAAA 60

ATTTAGGGAA TTCT 74

20 (2) INFORMATION FOR SEQ ID NO: 2307:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 53 base pairs

(B) TYPE: nucleic acid

25 (C) STRANDEDNESS: double

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2307:

30 TGTCATGCA CAGCTTTATT GGAATTACCC TTTTACAGG CAACGCTAA AGA 53

(2) INFORMATION FOR SEQ ID NO: 2308:

35 (i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 76 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: double

(D) TOPOLOGY: linear

40 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2308:

TAAATGATTA TGGGAATATC CAAATTTATC GAGATCTAAT ATGAAGTGAC TGCACACATA 60

45 TCAGCTCTGA ATGAAT 76

(2) INFORMATION FOR SEQ ID NO: 2309:

(i) SEQUENCE CHARACTERISTICS:

50 (A) LENGTH: 117 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: double

(D) TOPOLOGY: linear

55

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2309:

TCCTCAAAAT GTGAGTTAAT AGTCGAGTGG AAGCTGTGAC TTGAGCGACG ATACATCATC 60

5 AaACTATCAA TAACTGTTGC ACATCACTTT TACTACTATC ATTTGATGTA TAAATAC 117

(2) INFORMATION FOR SEQ ID NO: 2310:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 52 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: double

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2310:

AAATCATAT GCCTCCGAT AACCAACCCT GCTGCTGTTG GTACAAATTG TC 52

(2) INFORMATION FOR SEQ ID NO: 2311:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 56 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: double

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2311:

AACACTGGAG TCCTAATGTC ATCAAAACATC TACCTATAAG ACCTTATATA ATCGTC 56

(2) INFORMATION FOR SEQ ID NO: 2312:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 72 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: double

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2312:

GATAACATCA TAGGCCATAA CTTCCATTTA GGCCATCAGT TATAGCATGC GGACGACATA 60

45 CTGTGCCATA TG 72

(2) INFORMATION FOR SEQ ID NO: 2313:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 52 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: double

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2313:

CATCTAATGG GAACGTGTCG ATCCTAGTCA GTATAGTCAT CGGCAGGTAC GA 52

5 (2) INFORMATION FOR SEQ ID NO: 2314:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 64 base pairs

(B) TYPE: nucleic acid

10 (C) STRANDEDNESS: double

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2314:

15 TAAACTGAAA TTTAATTTTC GGATGGTATT GTTATTAAGA AATAGACATA ATTTGTGCTG 60

GATA 64

20 (2) INFORMATION FOR SEQ ID NO: 2315:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 59 base pairs

(B) TYPE: nucleic acid

25 (C) STRANDEDNESS: double

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2315:

30 CTAGTTTAAA TTCTTAAAC TTCTACATCA GTAAAAGGCC GCTCTGGGAC CATACAATC 59

(2) INFORMATION FOR SEQ ID NO: 2316:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 54 base pairs

(B) TYPE: nucleic acid

35 (C) STRANDEDNESS: double

(D) TOPOLOGY: linear

40 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2316:

GCATAGTAAC TTAATTGATA GGAGATGAAA ATCCGCAAAG TCATTGGAAG GATT 54

45 (2) INFORMATION FOR SEQ ID NO: 2317:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 150 base pairs

(B) TYPE: nucleic acid

50 (C) STRANDEDNESS: double

(D) TOPOLOGY: linear

55

5 GTATATCGTG GAAAGATAAA GTATGGANAA TGCATGGCGA ACATTTTGTG AGCAGAATGA 60
 GCTATAAGCG TTGAATGGGT TTGAACGTAA ACAATCGAAC AATGATATGT CAGACATATC 120
 5 TGCTTTAGAG CACATTTTGA GAGCGACATG 150
 (2) INFORMATION FOR SEQ ID NO: 2318:
 (i) SEQUENCE CHARACTERISTICS:
 10 (A) LENGTH: 52 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear
 15
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2318:
 AATCATCGA TGTAAATAA TTTAATGACA AGGATTAATG AAAGACGGAT TG 52
 20 (2) INFORMATION FOR SEQ ID NO: 2319:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 52 base pairs
 (B) TYPE: nucleic acid
 25 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2319:
 30 TTAAGGAAAC CTTGCCAAAG GTTAAGGAAA ACCGGGGGTT CCAAGGTTTT TA 52
 (2) INFORMATION FOR SEQ ID NO: 2320:
 (i) SEQUENCE CHARACTERISTICS:
 35 (A) LENGTH: 50 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear
 40
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2320:
 ATGAAGTTGA TTTAGGATGA AAATTAATCT TGGGATATTT AATACTTTGT 50
 45 (2) INFORMATION FOR SEQ ID NO: 2321:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 50 base pairs
 (B) TYPE: nucleic acid
 50 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear
 55

CTAACGCTAA GGGCGACGGA TGGTGGTnAT GTCAAAGAGA CAAATAGGAT 50

(2) INFORMATION FOR SEQ ID NO: 2322:

5 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 108 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

10

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2322:

15 CGTGGTGATT AATTTTTCGT CGGGTTTTGT TTCCTTTCCC CAGTCATGTT TTATCATTGT 60
 GGGCATCATT GCACCTGGGT TCCATATTAT GACGTCATTT TTTAnAAT 108

(2) INFORMATION FOR SEQ ID NO: 2323:

20 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 212 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

25

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2323:

30 GTCACCGAAT TTCGATTAT ATTATCACTC AATTTATTAT CTTGAAGCAC GGGTTAAATC 60
 GTCCTTAAAT TGAACAGTT GCTACTTTAT TGTCTTTACC ATTGATCTGA ATTTGATCCG 120
 CTTTAAGTCC ACTATCTTTT ACAACTTGcN CTACCTTTTG TTGAGTAATT GCTTGTTTAG 180
 35 ATTGGAAATC TACGCGTGTA CCACTTGAAA AA 212

(2) INFORMATION FOR SEQ ID NO: 2324:

40 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 133 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

45

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2324:

50 TCATTGTTT TTAATAGTT GTCAAATTA CCAACAAATG ACAAAATAA TTTTGCAATA 60
 CATATCAAGG TGTTATTTTT TTCCTATTTT AATTATGAT AACGCATTAA AAGTGACGTn 120
 AATATTCAAA GGA 133

(2) INFORMATION FOR SEQ ID NO: 2325:

55

- (A) LENGTH: 216 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

5

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2325:

10 ATGAACGACC GTGGACAGAC AATATTAA GCATTAAAA ACAGCGTTCC CAGAAAGACA 60
 ATATATAACC AATATTAAACA AAAGCAATGC ACATTACTTC ACAAATGAAA TCAAAGCAAC 120
 ACACATATAC AATGCAATAA GCGGGCAACA ACAACAGAT TTCACACGC CTGTCATACA 180
 15 GCAATATCGT TAACAAATGA CAnCCGCCnT TTAGGC 216

(2) INFORMATION FOR SEQ ID NO: 2326:

(i) SEQUENCE CHARACTERISTICS:

- 20 (A) LENGTH: 141 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

25

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2326:

TGACCATATG ATTGAGGAAG GTTTATTGA TCCTAAGTAT CGTGCTCTTG CACCGTTATG 60
 30 CGACACTAAG GAATCAITAA TTGAATCAAT ATTAAATTTn AAACCTCTGG GTACTCGTTC 120
 ATACGATTAA TCATTCTAAG G 141

(2) INFORMATION FOR SEQ ID NO: 2327:

35 (i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 55 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

40

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2327:

TGAARCTGCA GCGTGCCGA GTGGGGGTTG TGCCAGGTGA CCCCAGATGG GCGTG 55

45

(2) INFORMATION FOR SEQ ID NO: 2328:

(i) SEQUENCE CHARACTERISTICS:

- 50 (A) LENGTH: 54 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

55

GAAGCCAGCC TAATTGGATA CCACCGGAAG TAACTTTTGA CCAGGGCCGT CGCA

54

(2) INFORMATION FOR SEQ ID NO: 2329:

- 5 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 54 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

10

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2329:

15 GTTCCCGGTT CCAGGCCGTT GTCTTGTCGCC GGGGTGTTTG GTCCTTGOTT GTGT

54

(2) INFORMATION FOR SEQ ID NO: 2330:

- 20 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 190 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

20

25 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2330:

TATATTATAT ATTAACTGC TGTGATGAT TCTGAAAAA TAGTAGTATT GCCTATAATC 60
 ATCTATGCCA TTGIGTTTGT AATAATTGGT ATCACTTATA TCTTTATAGG CGACAGCTAT 120
 30 GATCAATTAA CAAATTTCAA TGTGATTTTG TATATGGGGA GTTTGThTTA TGCATGGATG 180
 GCTATTAGAA 190

(2) INFORMATION FOR SEQ ID NO: 2331:

- 35 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 54 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

40

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2331:

45 TTTCACCTC GTGTTTAAA TTCAATTGAA TCTAAACTAA AAGTACCTTT AAGT

54

(2) INFORMATION FOR SEQ ID NO: 2332:

- 50 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 246 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

55

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2332:

5 TTCTAAAAAT ATTAACGAAT TATACAACCT TAAGAGITTT TAGTATGTAA ATATTCITTT 60
 CATATTAATA CAATACACCC CTATATATGC TCACITGTTT GAATTAATAA ACITTAGCAT 120
 TCTGCAATA ATATTTTAAA AATAACTATA CTTTTTATTT ACCTATTGAA AATAGTGT 180
 10 ATCATATTTA TTAAGAAGCT ATTTTATAC TAGTAGGTGT CAGTCATGAA TAACATTTTG 240
 TTAAT 246

(2) INFORMATION FOR SEQ ID NO: 2333:

15 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 52 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2333:

25 CCTCTAACA TCTTTTACC ACTCATTGAA ACATGTGATC CTAATAACAT AA 52

(2) INFORMATION FOR SEQ ID NO: 2334:

30 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 60 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2334:

35 AGAAAAAGAGA CTGAAACAAC AAATTCAGGC AACTTTTGAA CAACAGAGAC ATCGATTAAT 60

(2) INFORMATION FOR SEQ ID NO: 2335:

40 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 193 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2335:

50 CCTCAATCAG CTCCTAAAGA ACAAATAGC GACTCGATTG ATGAGGAAAC AGTAACGAAA 60
 AAAGAACGAA AAAGTAAAGT AACACAATTA AAGCCATTAA CACTTGAAGA AAAGCGGAAG 120
 TTAAGACGTA AGCGACAAA GCGAATCCAA TACAGTGTTA TTACAATTTT GGTATTGTTG 180

55

(2) INFORMATION FOR SEQ ID NO: 2336:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 58 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2336:

CCTACAGTCC CAACACTGTC AGTACACTGC CGATACCCAA CCTCTGGCCG GTCGCGCA 58

(2) INFORMATION FOR SEQ ID NO: 2337:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 50 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2337:

ATATTTTThA TTTAATGGTT TTACTACTGC TACAATATC ATAGGTGGCA 50

(2) INFORMATION FOR SEQ ID NO: 2338:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 378 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2338:

CTCCTGTAGA TTTAAATCT CCTAAATAAC AAACGAATAA TCGCCATCT TTATGTATT 60

TGATGTCTGC AGGATTCGCT TTGTGACTTA CAAAAGGTGC TTTGATTTC TTGTTTCAG 120

GATTGATTTT GAAAATAITG CTTTCGAATA CATCCAATAA AAAGAGTTGT CCCTGCCGAT 180

CAAAGTTCAA TCCTTCTAGT TGCAATCCTT TTTGGAAAT TTCAGCCAT GGTTGAGCTG 240

TAATTGTTTG TAATTCACIT TCAGATATAA TTGGAACAGC ACTATTGGAC TTCCCCGChAT 300

AAAATAATGG AGGnAAAnC TGGTGGGGAC ATCCATGAGC CATTCCTTTC CATTCCATTC 360

GGTTTTAACT AACCAATT 378

(2) INFORMATION FOR SEQ ID NO: 2339:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 50 base pairs

(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

5

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2339:

ATGAAAATAA ACTGTGCTC CnGATGTATA CGTCCCTTCA AGCAGACTTC 50

10

(2) INFORMATION FOR SEQ ID NO: 2340:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 59 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

15

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2340:

20

TATCCATATG TGAAAATGT CATATATGAG TCTAGTTTG TATAAATGGA GACTCGAAC 59

(2) INFORMATION FOR SEQ ID NO: 2341:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 189 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

25

30

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2341:

ATTGATAAAA TATGATTAAG CGTTGTTGCA AATGACATTT TCTCAAAAAG CGCTTCACTA 60

35

TCAATTGGTA CITGTGTGTA AATTTCAGCC AGTCGCTTCG ATAAATATAG TTCATCTAAA 120

TTGTCAATTAA TCTTATTACG TTGCCAGCT GATAATGCAT CAATGTTTTT AACCACATTT 180

TCAACGCTT 189

40

(2) INFORMATION FOR SEQ ID NO: 2342:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 165 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

45

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2342:

ATCAATTAATA ACAAGCATA CAACAATTTG TTGATGTTGA ATCTAAATCA ATTTTGAAC 60

50

AACAAATGAT TCATCAGCTT CAACAATGAT ATCGTTCTTA TGTAGAGATG ATTACAGAAT 120

55

(2) INFORMATION FOR SEQ ID NO: 2343:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 55 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2343:

CTTAACCCCC CTTTTTCC C AATTTTAATG GGGAAAAATT GTAATTAACC TGGGC 55

(2) INFORMATION FOR SEQ ID NO: 2344:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 50 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2344:

GACAAATAAA CATGACCTGG ACAAGAAGA ACAATAACA AGCCTGGCAA 50

(2) INFORMATION FOR SEQ ID NO: 2345:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 111 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2345:

GTATTGCGAT GATGCATACG GGTATTGTTT TGATTAAATA ATATTTCATA TTTAATGTTG 60

ATAAATGTTG AATAAACAT CCGCAAAGnG CACTTGATGA TAGTGCTAAG A 111

(2) INFORMATION FOR SEQ ID NO: 2346:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 51 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2346:

GCAACAGTT TCGTGTCG TTTTCCAATT AAGTTAAGGA ACCCAAGAG A 51

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 60 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2347:

TCGTAGGTGC CATAACACAC GTTACCTGGG ACTCATATGA AGTATTATGT CGAGACGACC

(2) INFORMATION FOR SEQ ID NO: 2348:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 118 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2348:

GTITTTAATA GGCTCTTTAC GTATCTAAAA ATAATTGCAT TATTGGTGTG CTTGATGTA

ATTGAATTAA AGTACCGTTT GGTTGTAACG TTTCAGGTAT ATCATTTTCA ACNATAAC

(2) INFORMATION FOR SEQ ID NO: 2349:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 176 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2349:

ATGACAGAAA GCAAAATCCC AATGTTGATA TACCGTTTTT GACACCACCTT GATTATCATT

ATTITTTTCTT TAGCGATGGA TTTTATATTA CGATTTCAT TCTTACTATC GTTGCAATTAT

TGTCATTCAA ACTGTATCGT TTTTACTnTT ATAGACTTTT CGCAATAGTA ACATGG

(2) INFORMATION FOR SEQ ID NO: 2350:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 201 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2350:

CTAGCAGTGA CATTAACTGT GCAGATGTAC CTGGATTCTA TTTTTC AAG AACAAATTGT 120
 AATAATTGAT AGTTATATGG TGCAATGTCA CCTTCATCCA TTGAGCGCTC AATAATTCA 180
 5 GCTGChAGAG CGGChTGACT G 201

(2) INFORMATION FOR SEQ ID NO: 2351:

10 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 158 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

15

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2351:

ATCGCTATAA CCTATCAGTG ATAATATTTG ATTGCATGGT GCACCATTTG AnATTTCACT 60
 20 TAGAATGGTG GTACCTAAAT GCATTATTTT ATATGTCATT TGAAGATTTA AAAATTAAAA 120
 ACTTTGATAC AGAGTGAAC CATATTTCAA CAAATTAC 158

25 (2) INFORMATION FOR SEQ ID NO: 2352:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 400 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 30 (D) TOPOLOGY: linear

35

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2352:

TCGTAATCAA AACATTTTGA ACAGGATTAT AGTAAGGGAA TTTTGGATT TTAAC TTGTG 60
 TTTGTTCAAT TTTTAATAAG AGTCGAGCTA AGTCTTGCAA CATCATTA CT TGCTTGGCAT 120
 40 CTAAC TGTC GTCAATTAAAT TTTATGAAAC GATCACTCAT GTTTTATCCC TCTTTAAAAG 180
 TTTAGTTCTA CAGCATTATA TATTGCTTGT TGTTACAGTT CATCTTCCAA TTTATCAATA 240
 ATTGTACGTT TAATTGCACG TTCAACTGGC ATTACAGTGA TTAAATCACA CAAGTCTAAT 300
 45 AATGCACGGG ATACTAGCGG CTTCTTCAGA AATTGTGCCC TGCTTAGACA TAGTACGTAA 360
 ATCTTCATTG AAACCTTnAAT AATTGGTTC GATTGGTTT 400

(2) INFORMATION FOR SEQ ID NO: 2353:

50 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 127 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 55 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2353:

ATTAATGGGG TTAATAACA TTTTGACTGC GAAAGATTTA TTCTTTTCAG GTAAATCATT 60
 5 GATAGATGTA TATAGTCAAT TTGCTGGATT AGCTGAAATG ATAAATGInt TTGCGAATGC 120
 ACCATTT 127

(2) INFORMATION FOR SEQ ID NO: 2354:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 223 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2354:

ATCTCGTGT TTTTATGAAA GAAACTACA TTTTCGAGAG AATAAAAAGA TTTTCTGAA 60
 ATTTAATCTA TCAATTACAT TGATTTACTA ATATAATTAG AAAGTAAATT TTATTTGATC 120
 25 AAAGTAAATG GGGGAAGTAC TGTGATAGAA AATAAGAAAA CAGTTGAAGA TACATATTCA 180
 ACAGGCGCAA TTGTTGATTC AATATCATCT TCAGTnCAAA TGn 223

(2) INFORMATION FOR SEQ ID NO: 2355:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 400 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2355:

ACACTGTGTC AAACACTCAC AATGATAAAG CATATTATCA GTATTGTAGT GTGTGGAAAA 60
 40 TGACAGCCAT CTAAGGAGAA AAATGATGAA AAGAATATTG GTAGTATTTT TAATGTTAGC 120
 AATTATATTG GCAGGTTGTT CTAATAAAGG TGAAAAAGTAT CAAAAAGATA TTGATAAAGT 180
 45 GTACAAAGAA CAGAATCAAA TGAATAAAAT TGCCTCGAAA GTACAAAACA CTATTAATAAC 240
 AGACATTAAA CAAGAAGACA GTAATACACA TGTTTATAAA GATGGTAAAG TCATTGTTAT 300
 TGGTATTCAA TTATATAAAG nTCGTGAAAA AATGTATTTA TTTCGCATAT GAAnTAAAA 360
 50 GTGGTTAAGG CCAGAGGATT TAATCAGnGG AAAnTAGACC 400

(2) INFORMATION FOR SEQ ID NO: 2356:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 344 base pairs

(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

5

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2356:

AATTTACTTT GTGCCACAAG GTTATCAATG TCTTTTGAAC CACCAACAT TCTAGCGATT 60
AAGTGACCTC CATCATCGTC TGGTAATCTA TCTCTCCCC CCACAGTTCT TGTGCAATGG 120
CTATTACGAT CCCCATCTTT TAGAGAGAGA TTGCTACAT AAACCTCTTT TATGCGACCT 180
TTATGATCGG TTCGATATAT GTGACCASTA GGTGTGTGT ATTCAATATT CGCCTTTAGT 240
TTCCTAGGTA CTAAGTCTTG GCATAGTGTT CTCGAATTC NAACCTTGGT GTTAGTTTGG 300
TGATTCAACA TACTTTTGAT GGAATTCATT TnCATGGGCT ACTT 344

20

(2) INFORMATION FOR SEQ ID NO: 2357:

(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 53 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

25

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2357:

TATGCGCCCC TGCTTGATCT TTCATTTGCG TCCACTCAAT TAGTTGTTTG CGC 53

(2) INFORMATION FOR SEQ ID NO: 2358:

(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 400 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

35

40

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2358:

ATTTTTTCAC CTCTGAAAT TGATAAATCT AGGTTATCGA ATATAGTCTT ATCGGCATAA 60
GATTATTTTA AATGTTCAAT TTTATATGCT TCCATACCCA TCTTCTTCT TCTGTTGAAA 120
TCTCTACGTA CTAAATCAG TTCTATACAT TATACACCTT TTTGAAATCA AAAGAAATCG 180
ATACCGTTAA GTGTCATAAT TTAATATATT GTTGCTTCAA CTATAAATAA AACTTGTTAA 240
GGCTTTGATG ACTATGCTAA TGATCTTTAT AATATACCTT TTTATCAACA CATATAATGT 300
AAAACATAAT ATAAAGAAC ATAATAAAAA CCGGATTGA TATTTTATCA ATCCGAGTTC 360
GTGTTTAGAT ATTATTTTTT AGAGTTTGCT TTAGTCTCTG 400

55

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 154 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2359:

TTAATGTCGC CATTITTTGT TAGGTAGACG TATAAATCTG GACCTTTTGA TGATTGTGAG 60
 TTAGTAAGCA TTAATTTACC ATTTTAAATC TCAGCTTTAC CTTCAACAGT TTCACCGITT 120
 TTAGAACTGA nTGACCTGT TAGGTGTTT GTTT 154

(2) INFORMATION FOR SEQ ID NO: 2360:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 57 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2360:

ATATGTCCTG TGATTTTCA GGTGTAAGTT AGTATGCAAG TGATTATGAT TGATAGT 57

(2) INFORMATION FOR SEQ ID NO: 2361:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 58 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2361:

GGCATCAAAT TAGTAGCGAC TCACACGTGA TGCATCCTGT GTTTTGGATC TCATTTCT 58

(2) INFORMATION FOR SEQ ID NO: 2362:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 50 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2362:

TGTTATTATC GnAGAGGCTT TTCGCTTGG AATAAGGTAT TACGTGAATG 50

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 50 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2363:
 CTCCTCTGGT CCCTGCAGATA CATAGGAGAA ATAGCnCCAT GTACAACGTG 50

(2) INFORMATION FOR SEQ ID NO: 2364:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 50 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2364:
 ATTGCCAATG TCGTTAGTTC GTGAGGCTGT TGGTGAAAGT TGTGTTTGAA 50

(2) INFORMATION FOR SEQ ID NO: 2365:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 111 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2365:
 CCATGATTTA AATCATTGAT TAATGGTGCT TGTCTACAT CTGTGTAATAA TTCATACAAT 60
 TCTTTAGCAT CGTCGAATAG TTCATCACGA CGTTGgATAA ATTCTCTTC T 111

(2) INFORMATION FOR SEQ ID NO: 2366:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 139 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2366:
 TAATGCTGAG CGTGTACTT TAGTTGGATC AACGATACCT TCTTCTAACA TATTAAACCA 60
 CTCnTTTGTA GCAGCGTTAA AACCAACACC CGGCTCTGCG TTTTTCAAAC GTTCTACAAT 120

(2) INFORMATION FOR SEQ ID NO: 2367:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 50 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2367:

CCTGATTGCA AAGTACAGCA AGCACTACAG ACGCCTAAaC ACThACACTA

50

(2) INFORMATION FOR SEQ ID NO: 2368:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 55 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2368:

AAAAITGGTAT TGCAATTAGT AATGTTACAA CAAGTGTGTG AATAGCTGCA TAAAT

55

(2) INFORMATION FOR SEQ ID NO: 2369:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 51 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2369:

TATAGGATGA AAATCCTGCC AAAAGATTAA GGGTGGCCT AATGAACCAT G

51

(2) INFORMATION FOR SEQ ID NO: 2370:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 52 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2370:

TTGCTCGAGG TGGTAAATAC GCAAAGITTA TTTGGTTGTG CTAAGAGAGA AA

52

(2) INFORMATION FOR SEQ ID NO: 2371:

(A) LENGTH: 66 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

5

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2371:

10 TAATTGGAAT AAGGTGGAAG TGATAAACAG TGCTTTGCGA ATCTAGAGTC ATTAATCAAA 60
 ACCCTA 66

(2) INFORMATION FOR SEQ ID NO: 2372:

15 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 65 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

20

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2372:

25 AGACAGGTAC TGTCTACGG TATGGAGCAG AAGCGGGAAA GCTGCCCA GACCAACTGTA 60
 GACAA 65

(2) INFORMATION FOR SEQ ID NO: 2373:

30 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 400 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

35

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2373:

TTGCAGTGAC GGCTTATAAT CATTCCAAGC GAACAATTAG ACATTCCATA TAAAAATATAC 60
 40 AGATGGCTTT CAGTAGAGTA GTGGATTCGG ATTCACGAAC TATACTGGAA GCTTTTTATT 120
 ATAAATGAAG AGAAGTTATA TTTTTCAGCAT GTATAGTTGA ATACTGGGTT AAAATACCAT 180
 45 ATTAATAATG AAGTAAAGGT ATGAGTGATT ATGAAAGTGT TTGGAATGAA ATATATTTAA 240
 TTGGTGATGC TTTTAAATTG AAAGATTAAAC ACGATTCAAC TTGGTAAATT GTATTAATG 300
 TGAGAAAATA AAAGTATATT CATTGAGAGA TATATGAGTC AATGATCGTT TTAACAAGA 360
 50 TAAGTGATTT TTAATATGTA AAAGTTATGT AATAAATATT 400

(2) INFORMATION FOR SEQ ID NO: 2374:

55 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 70 base pairs

(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

5

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2374:

CCTATCATGC CTCTCTCTCA CTGAATCCCT TAGATCCCCCT TCCCTCCCTC TCCCCCTCT 60

10

TTTCCCCCTC 70

(2) INFORMATION FOR SEQ ID NO: 2375:

(i) SEQUENCE CHARACTERISTICS:

15

(A) LENGTH: 50 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

20

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2375:

CCAAGTCAGA GCAGCAGTTC AGTTGTCAG CnGTTcAGTT CAGAGCnGTC 50

25

(2) INFORMATION FOR SEQ ID NO: 2376:

(i) SEQUENCE CHARACTERISTICS:

30

(A) LENGTH: 50 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2376:

35

GTTGGTGAAG CTGTTGCCGA nGGAGAAGCG GGTATGGATC CTGACGGTgn 50

(2) INFORMATION FOR SEQ ID NO: 2377:

(i) SEQUENCE CHARACTERISTICS:

40

(A) LENGTH: 59 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

45

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2377:

AATTGCAGGA CAGGTCAAAG GCAAATGCAC GTATTcAGGT CATGCTCATG TGCATGTTG 59

50

(2) INFORMATION FOR SEQ ID NO: 2378:

(i) SEQUENCE CHARACTERISTICS:

55

(A) LENGTH: 229 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2378:

5 TTTATCATCG TATAAATCTA TATCTAATTG ATTAACCTTC GGGTGCITAA CTAACCTCTT 60
 CAATACACTT ACACAGCAG TTCCCATGCC TATTATTGCT ACACGCATAT ATCATCCATC 120
 CTTTGTGAAT TCAAAATATT ATATTAAAC TATTACCTAT AATTATAGCA ATTTGGTATT 180
 10 TCCAATAAAA TTTAThAAGG TAAGChATTA TTCACCTTC ACAACCATT 229

(2) INFORMATION FOR SEQ ID NO: 2379:

(i) SEQUENCE CHARACTERISTICS:

15 (A) LENGTH: 116 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2379:

AGTTTTTTGT TTGACGTATT TAATTTACTA TTGCTTGAT TGATATTTTT AGACATTAAA 60
 25 TAGTGTTCTC CTAATCAATT TATTCTCTT TAThCAGCA TTATTCGCAC TGACAT 116

(2) INFORMATION FOR SEQ ID NO: 2380:

(i) SEQUENCE CHARACTERISTICS:

30 (A) LENGTH: 136 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2380:

35 CAAATCTTAG CGGATGATTG GCATGTATAT TCTGCTGGTA TCGAAnCAG CGGTGTTAAT 60
 40 CCCAAAGCGA TAGAAGCTAT GAACAGAAGT CGGCGTTGAT ATGTCGAATC GTACGTCAGA 120
 TTtAATCGAT AATAAT 136

(2) INFORMATION FOR SEQ ID NO: 2381:

(i) SEQUENCE CHARACTERISTICS:

45 (A) LENGTH: 400 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2381:

55

TTAATTGATA GCTTTTATCT GTAGGAAAAG CTATTTTAAA GATTTCAGT GTATCTATAA 120
 CTTTTTTGGG ACGATATTGA ATATTACAAT CTTTAAATGC CTTTTTAATA AAATTCAAAT 180
 5 CAAAATCTAC ATTATGAGCT ACAAAAATGC AATCTTTTAT CTTATCGTAG ATTTCTTTGTG 240
 CAACITGATT AAAATATGCG GCTTGTGTGA GCATATTTTC TTCAATGGAT GTTAACGCTT 300
 10 GAATGAACGG CGGAATCTCT AAATTGTTC TAATCATAGA ATGATATGTA TCAATAATTT 360
 GGTATTGCG CACAAACGTT ATACCAATTT GAATGATATC 400

(2) INFORMATION FOR SEQ ID NO: 2382:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 53 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2382:

TATTTTGTTA ATAAAGTTAA TATATGTTTG TTGTACAGAT AGTTCAGGAT ACA 53

(2) INFORMATION FOR SEQ ID NO: 2383:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 59 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2383:

CCCAGAGCTTG CCTCCTCTCC CCCCTCTTGG CCTCCAGACG AAGTGCCTT CTGTCCTTG 59

(2) INFORMATION FOR SEQ ID NO: 2384:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 110 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2384:

AGCCAACATC CcGATGGTA CTGTCATTAA TGCATAACCT AGAGAGAAGA ATGATGCCAA 60
 TAAACCAAAAT TGTGGTTTTG TCATCCCTAA ATCATCCATC ATTTGCTTAG 110

(2) INFORMATION FOR SEQ ID NO: 2385:

- (A) LENGTH: 50 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

5

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2385:

10 TGAAGTTCT TTTnGCATC AATTTTAAnA CTACGAGCGG ACnCTAATAT 50

(2) INFORMATION FOR SEQ ID NO: 2386:

(i) SEQUENCE CHARACTERISTICS:

- 15 (A) LENGTH: 245 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

20

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2386:

GGCAATTTAT TGACACAATG CTTGAGCnAT TGATAGCAGG ACAAGAAAGA ATACTTGATG 60
 25 AGTTAATACC AAAAATGGAT GCGACTGAAA AATTAACGCT TTATTTAACT AGTCATTATA 120
 AACAGATAGA TTATGAATTT TTGTATCTCC TTTCAATGGA TAAATTGTTT GGAATAAAA 180
 GAAATAGATT AACATTAAAT GATTTAGAAA ACATATTGGG AGTAGGAAGA GTAAAAATTA 240
 30 GTnGT 245

(2) INFORMATION FOR SEQ ID NO: 2387:

(i) SEQUENCE CHARACTERISTICS:

- 35 (A) LENGTH: 140 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

40

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2387:

CACAAAATTC GAAATCGTCA TCGGTGATAT GTTTAATACT TGGGAAAATA TAAAACGCGC 60
 45 CTTCAGGTTG AGCGGTAATC TCAAAACCTA ATTTAGTTAA TTCAGATACT AAATAATTC 120
 TTCGTTChAC ATAAGCTTCG 140

(2) INFORMATION FOR SEQ ID NO: 2388:

(i) SEQUENCE CHARACTERISTICS:

- 50 (A) LENGTH: 120 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

55

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2388:

ATATAACATT GTAGGGCCTA ATAATTTATT TTATGCTCA GACTCATACA ATGGTTATTT 60
 5 AACCTATTTA CCACAAATTG AGCACTAAGA CTCACTATTA TCGATTCCTC TATTGAACAN 120

(2) INFORMATION FOR SEQ ID NO: 2389:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 85 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2389:

TCTAAATCCA GCATGATCTA CATCAAAGCT GAATTCACCT TTTTCATCGA CTTCGAAATC 60
 20 AGGGAATTCT TGACCTTCAC CTAGT 85

(2) INFORMATION FOR SEQ ID NO: 2390:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 61 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2390:

GGTGTTTATA AAGCAGGGGC TGAGCCTCGG TCAGGACTGG ATACACAGGC AGTACGGGTG 60
 35 A 61

(2) INFORMATION FOR SEQ ID NO: 2391:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 51 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2391:

TAAAGTAACC ACTTTAGATG ACATTTTAGA AGTTATGGGC CGAATGCAAA C 51

(2) INFORMATION FOR SEQ ID NO: 2392:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 50 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2392:

5 GGTCCGGAATC CCGGTCGAC CCAAGCGTCC GCATCAACCT AGnAGAAGCn 50

(2) INFORMATION FOR SEQ ID NO: 2393:

(i) SEQUENCE CHARACTERISTICS:

10 (A) LENGTH: 55 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

15

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2393:

ATTTCCAAAC GAATTGAAAA ACGACGTAA ATTCTTAACT AAAGGCGATA AATGT 55

20 (2) INFORMATION FOR SEQ ID NO: 2394:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 120 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

25

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2394:

30 ATAGGTIGCT ACTATTATA TCGACTCATT TTCCTTACA AATATGACAT TGCTCTAGA 60

ACACAAAAAT TAATTGCGT CATATCTGCT ACAGTTTGA GTGTGTTATC AAGTGATTT 120

35 (2) INFORMATION FOR SEQ ID NO: 2395:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 261 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

40

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2395:

45 TGGACCATAG TAAAGCATT CGGTCGGTTT ATTATTTTCT AAGGAAGTAT GTTTATATAA 60

ATCTATGCTC AITTTGTTTT TAGCGTCTGT TTGACCTATT ATTTTAGAAC CAGCCATCTG 120

50 CTCTTTATAA AAATTTATTA CATCATCTTT TTTTAATGTT GTATATTCAT AGTTTATTTT 180

TATTATnTCA GAATCGTGAA AACTATTTAG TGATTGAnAT ACTCTTTTGT GAGGATTTCTG 240

AATATAGATT TTCTTAATAT T 261

55

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 104 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2396:

GTTTTGAATA TAGGGGCTTT TATCACTCTC CGAAGTCTnT TCTAAGTTAG ATTTGGAAAA 60
 TAACACTTTT TTAGTTTCAT TCAAGCGAGT CGAGTGACTC CAGA 104

(2) INFORMATION FOR SEQ ID NO: 2397:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 54 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2397:

GATTATCGAT CACAGTATGA TTTACGTAGC AATTTCTGGT ACATATACGC CTAT 54

(2) INFORMATION FOR SEQ ID NO: 2398:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 235 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2398:

GCTTCACCTT GAACTAGCAA ATAAGGATAA AACAAGCATT CTTTACATGT TTCTTTTAAA 60
 TACGTTTGAT ATTITAATAA TACTTTTTTCG ATTTTACTCA TATAAGTTTG AAGTTCTAAT 120
 TTTTCATTCT CACTTAITTT GTATATATTA CATTCAATTAT GTTCTGTCAG AAAAATATAA 180
 GGGTCAATAT TAATTCGTCG TATCAATTCA TAAATTTTAC TTAAGTATTT nTnCT 235

(2) INFORMATION FOR SEQ ID NO: 2399:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 111 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

TTTGATGCAC TTATTTGTGT AATGACATCT TTACAGTCTT TTCCTTCCTC CATCATTTTA 60
 ATAATTCCAT TTAGTTGCCC TTGTATTCTA TTAATACGAT TAATCATTTT n 111

(2) INFORMATION FOR SEQ ID NO: 2400:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 54 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2400:

AAATGCTGGC TGAGTTTGG GCCACCGCA AAGGCACTGG ACCGSGCGA AACC 54

(2) INFORMATION FOR SEQ ID NO: 2401:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 205 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2401:

AACCACTCAT CACTACTAAA ATGATACTTA AAAACAAAGT CTTAATACAC TTTTTCATAA 60
 TATCAACTTC TTTCTATATT TAATACATTA ATTATACATC TTTnTnAAAT AAAAATATGT 120
 GTAAAAATTT AAAACTTATT TAATTGATGT TTTAATAATG TATTATAGAA ATTATTGACA 180
 TATGATTAAA AACCCCTTAGG ATAGT 205

(2) INFORMATION FOR SEQ ID NO: 2402:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 140 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2402:

AGATAATCAT AGAGAAAGTC CACAGTCGGT AGAGGTGGTA GCTGAAAACA ACATACTATT 60
 AATTATGAAG TGCCTTGTAA CTTGTGCGAGA CGTTTGCCGC GAATCTATCA TGATGGTGAT 120
 CAACGTTTTG TnACAAATGA 140

(2) INFORMATION FOR SEQ ID NO: 2403:

- (A) LENGTH: 58 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

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(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2403:

10 ATTTAACCAC TCCTCCAATG ATAGATTGA AAGGCAAGAT GACCTTCCAA TCTTATTT 58

(2) INFORMATION FOR SEQ ID NO: 2404:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 61 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

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(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2404:

CAGCTTCTAC AATACGGCGT GCTATAGCAA GCATTAATGT AAATCCTAAT TCTGCAGTTG 60

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T 61

(2) INFORMATION FOR SEQ ID NO: 2405:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 217 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

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(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2405:

AATAATCATT TTAATACGGT CTTCAGGAAT TGAAGTGTCT ACAGGTACAT ATCCACATCC 60

40

TGCTTTAATG GGCACCAATC ATCCCAACAA TCATATATGG TGACATGTGA CCGAnTAAAA 120

TCATCGGGTT TCTRACTACC TTGTAATCGA TGTGGCTAAT TTACTAGACT CATCCATTAA 180

CTGTTGTATAA GTTAATTCCA TCAGTTGTGT GTCTAAC 217

45

(2) INFORMATION FOR SEQ ID NO: 2406:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 228 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

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(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2406:

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GTAGTATCCA ACGTATTTCG GATTGCATCG AGTTGATTTT TATTATTTC TTCAATGCTA 120
 TCAAGCGCAa CTGTATTACG TCTTACTTTA GGTTTTATTT GCTCTATTGC CTGTATTGTT 180
 5 TGATnTCTAA CATCACTAAC AGCAGCATCT TGATTGTGAT TGCTATT 228

(2) INFORMATION FOR SEQ ID NO: 2407:

(i) SEQUENCE CHARACTERISTICS:
 10 (A) LENGTH: 110 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

15 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2407:

CCTTTGCTCT CGCGCGTTTC GGTGATGACG GTGAAAACCT CTGACACATG CAGTCCCGG 60
 20 AGACGGTCAC AGCTTGTCTG TAAAGCGGAT GCCGGGnAGC AGACGCGAT 110

(2) INFORMATION FOR SEQ ID NO: 2408:

(i) SEQUENCE CHARACTERISTICS:
 25 (A) LENGTH: 73 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

30 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2408:

GGAGACCCCA AAAATTGTTG CGTTGAAGAT GCCTTTTTTT AAGCGTATT TGGCTATATC 60
 35 AGTTTCTAAC TGT 73

(2) INFORMATION FOR SEQ ID NO: 2409:

(i) SEQUENCE CHARACTERISTICS:
 40 (A) LENGTH: 53 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

45 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2409:

AAATCATTAG AGAGGAATAG TTCCCTTTGT TACGCCAAG ATTCGATATT GAC 53

(2) INFORMATION FOR SEQ ID NO: 2410:

50 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 54 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double

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(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2410:

CCATATGATT GTATAGGATC CATGACGTCT CCACTGACCC CTGACTCTAG TATC 54

5 (2) INFORMATION FOR SEQ ID NO: 2411:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 204 base pairs

(B) TYPE: nucleic acid

10 (C) STRANDEDNESS: double

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2411:

15 GTTCTCTTTC AATTGTTATA TGTATATCAC AAAAATTATT TCATTATTTT ACCATTATTA 60

TTTTACAAAT ATTATCCCAA GAATACAATT CAAGAAATGA TTAAC TTAC TTTAGAATTG 120

20 TACCTTATTA CATTATTAT GAAAGTACTC TCTCAATTAT AACnAAAAAG AAGGTGTTCA 180

ATACATnCAT ATTAGTCTT ATAT 204

(2) INFORMATION FOR SEQ ID NO: 2412:

25 (i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 56 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: double

30 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2412:

35 CAGTGGCGCA GAAACATAAC GCTCAGGGAA GCACAGCACC TCATTATGCC AAAGCT 56

(2) INFORMATION FOR SEQ ID NO: 2413:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 66 base pairs

40 (B) TYPE: nucleic acid

(C) STRANDEDNESS: double

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2413:

45 TCGTGGCGG GTCCGCGCG CCTAGCGTGC TCATGTGCGG TGTCTAGTG GTTGGGGTTG 60

CAGTCA 66

50 (2) INFORMATION FOR SEQ ID NO: 2414:

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(A) LENGTH: 65 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

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(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2414:

GGATAGAAAT GGAATCCAC CCATCGGTGG GGTACCAGG CTCCTCATAT GGCCTTGTGG 60
 ACTTC 65

(2) INFORMATION FOR SEQ ID NO: 2415:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 267 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

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(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2415:

TTAAATAGAT AGAATAGAAT TAAAGAGACG ATGATAGGTG CTGCTATCGT CTTAAAAACG 60
 ATGATAAAAG GATCAAAAAC ATATGATACT TTTTCGAAAA TAAAAATAAC AATACCCAC 120
 AATACTAGCG CTATTAATGA GAAGACTAAA TCATTCACCAC CAACAAACTT CATATACCGT 180
 GATTTCGGTAA ATTTTnnAAA ATTCTTTCIT ATATCTTTT CATTTTCATT CAATTATAGA 240
 TTCACCACCA CTTAAAAATAT TCATAAG 267

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(2) INFORMATION FOR SEQ ID NO: 2416:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 50 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

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(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2416:

TTAAACAAAT GAATATAGTA GTTCCATTAT CCTCACITTT AATCGTTTAT 50

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(2) INFORMATION FOR SEQ ID NO: 2417:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 177 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

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TTTGCTGGGA GTTGCAATTA GAAATATAC ACATTTACTT GACATTCAAC TTGATAAAAA 60
 ATTAGTTATT GCCATATGTT GCATCACATT TATAGGGATT TTAATATTTT ATGTACGCCT 120
 5 AATTAAAAAA TCATCTTTAA ATATTTATAA TACTAAAAAT AAAAGGTCAA AAATnTT 177

(2) INFORMATION FOR SEQ ID NO: 2418:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 400 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

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(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2418:

AAAATGAAGC GGTGCAAAA TATAATGACG TGAAGCATT TTACTCAT GGACATTTAT 60
 20 ATCAAGTCAA TCGAACAGA GATTATATTAG CTGAAAAAGG ACTTGAATTA GGTGTTTGT 120
 TTGCATTTTA TGGACATACA CATGTGGCAA AATATGAGTA TATTAATGGT GTTCATGTTA 180
 TTAATCCTGG AAGTATATCT CAATCTAGAA GTTCAATGGA AGAAACATAT GCTGAAGTTA 240
 25 TTATTGATGA TCAAACTTTA CATGGACCA TCAATTTCAA AAATCGACAT CACGAAACAA 300
 TCAGTCATAC TACTTTTTAA ATAGAANTAG CTATGGCTTT TTTTAGTTTA TAGACTGATT 360
 TAACTAGGAG GTCGTGTCAT CCAATGTTG TTTAAAAGTA 400

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(2) INFORMATION FOR SEQ ID NO: 2419:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 53 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

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(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2419:

AGGGTGCCGA GTTAACCAAG AAAGCCGTT GGTGCCCCG GGTATTTTCC CCC 53

(2) INFORMATION FOR SEQ ID NO: 2420:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 58 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

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(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2420:

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(2) INFORMATION FOR SEQ ID NO: 2421:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 152 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2421:

ACCAGAAGAC AATAAGTGTA ATGATGCCTG TTCTAATACA GAATCTTTAC TTTTATTGCG 60
 CTTTCAAGT CGTTGTTCCA CTTTCTTAAT TTCAITGTTT ATGTTTAACT TTGCCAnGTT 120
 AATCACCTTT GGTATTATCT TTTTCTTTAT AG 152

(2) INFORMATION FOR SEQ ID NO: 2422:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 307 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2422:

GTACGTTTTC ATTAGTTGTT ATATTTCAT CTGATAATT TTTTAAATCT TTTAAATCAG 60
 CATACTGACT AAAAAATTTA AAATTITCAA TTTTGTGtT AAGTTTTTGT CTTCTACATT 120
 ATCCAAAGA ACAATCTnAT TATTTTITAG TTCAACAGCA TATTTTITCT CATTATGATT 180
 TTTGCTAATA TCATCATAAA CTTTATTAC AAAATAATAA CCTGTTGCCT TTTTGGTATT 240
 TCTATTAAGA TATAACACCA TGCCTTCATC ATCTAATACT CCTGGTTTGT TACTTTTTGA 300
 AAAACcn 307

(2) INFORMATION FOR SEQ ID NO: 2423:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 56 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2423:

ATTGTGTTGT ATTTTGAACA AGACCTTCAA TTTTGSAGAT TTCACGATTT ACCACC 56

(2) INFORMATION FOR SEQ ID NO: 2424:

- (A) LENGTH: 50 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: double
- (D) TOPOLOGY: linear

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(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2424:

10 AGTCCTTTGG ATCGTCAAGA TTCAACACAT TTACaTTTAT TAnCTCGTGA 50

(2) INFORMATION FOR SEQ ID NO: 2425:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 248 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: double
- (D) TOPOLOGY: linear

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(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2425:

ATGTAATATT ACAATTCaAT TAGnAAAGAA CTTTATCTTT AATTGCTTTT CGATTTCATT 60

25 CATGTCACTCT TCTGAAATTA TTATCGTTCC AGTAGGATCA GAATCATTTA TTTTGCTTAT 120

ACGCTCTTTG CTTATTGTTG TAATTGCTGA TATATTAAAG TATGTATCTT TCCCTTTGTG 180

CTTGGAAATAA ACACCTATCA CTCTATACAG TTCATTAGCT TTTTGAnTTA AGTTAGACAA 240

30 AAGCTTTT 248

(2) INFORMATION FOR SEQ ID NO: 2426:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 53 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: double
- (D) TOPOLOGY: linear

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(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2426:

CCTTATTATA TGACAGGTTG CCTAAACAAG TGCTAGAGA AAAAACTAGC CCC 53

(2) INFORMATION FOR SEQ ID NO: 2427:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 173 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: double
- (D) TOPOLOGY: linear

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(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2427:

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TATCCACTAA AATGATTTCG CGGTATTGTA ATATTAATCG TTCTACTTTT TATGATTATT 120
ACAGGGAGCA ATTGATTTA TTGATACCA TCAACTCnAA GCATAGGTGG AGG 173

5 (2) INFORMATION FOR SEQ ID NO: 2428:

(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 50 base pairs
10 (B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2428:

15 TACTTATGTT TATGTCGCAA TAATTAATGT TCGAnTTAGT GGAATTGAAC 50

(2) INFORMATION FOR SEQ ID NO: 2429:

(i) SEQUENCE CHARACTERISTICS:
20 (A) LENGTH: 68 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2429:

25 AGTCATCATA TTATCAATAA TACGCCCGGT TAAATCTGAT AAATTCATAT AGTCTGTATC 60
30 TAACTCTG 68

(2) INFORMATION FOR SEQ ID NO: 2430:

(i) SEQUENCE CHARACTERISTICS:
35 (A) LENGTH: 374 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2430:

40 TGAATTGAAA ACGGTCGGTG AAGCGCTAAA AGGTAGACGT GAAAGGTTAG GAATGACTTT 60
45 AACAGAAATTA GAGCAACGTA CTGGAATTAA ACGTGAAATG CTAGTCATA TTGAAAATAA 120
TGAATTTCGAT CAACTACCGA ATAAAAATTA CAGCGAAGGA TTTATTAGAA AATATGCAAG 180
CGTAGTAAAT ATTGAACCTA ACCAATTAAT TCAAGTCAT CAAGATGAAA TTCCATCGAA 240
50 CCAAGCCGAA TGGGACGAAG TAATTACAGT TTTGnATAAT AATAAAGACT TAGATTATAA 300
GAGTAAATCC AAAGAGCCAA TACnATTATT AGTAATCATG GAnATTACAG TTTTAATAAC 360

(2) INFORMATION FOR SEQ ID NO: 2431:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 57 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2431:

TCGATTCGTC CAAGTACAAC TGCAGTCAGT ACCTACGAAA TCAAGATCAG CATGGAT 57

(2) INFORMATION FOR SEQ ID NO: 2432:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 225 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2432:

ATTCTTAATC GCATCATAAT TAATTAACGG ACGCATAACA AATCCGATAA TACTATTATC 60
 TTTCGAAGTC ACTGACACTC CAAATTGATT TGCTTCnTCT ATCCATATTT GCTCAATAGT 120
 ACCATCATTT TGAGTACACA CTTTAAATTC ATGTACATCA GACTGCCTTG TATAAGATTT 180
 GAAAAGTTTC CTAACTGCC AATAACTGnA CTCTCGCTTC AAATT 225

(2) INFORMATION FOR SEQ ID NO: 2433:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 57 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2433:

CGGCCTGACG TTACATTCT TCAACTTCAC GTCAAAATTG CTTCGCAATA ACCAGGA 57

(2) INFORMATION FOR SEQ ID NO: 2434:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 104 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

TTAAACGTGT CTTTAATGTG GAAGTTGAAA TATTAGTCCG TAAAAAATG AAACTTAAAA 60
 AAAAATAATA TTTATATTTG TCGTACAAAG ATGAAAGCGA nAGA 104

5 (2) INFORMATION FOR SEQ ID NO: 2435:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 51 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

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(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2435:

15 TTGCTAATC GTTTCACGGA TTGTGGGGAT GGGTAAAGAC TTTGCTAGTG G 51

(2) INFORMATION FOR SEQ ID NO: 2436:

20 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 140 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

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(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2436:

30 AAAnTTAATT TTTGGGGGGC CCITTTTTTAA CCGAAAAATC CAATCGGGGC TTTTAAGGAA 60
 TGGTTTGGT TAACAGCGCTT TCGAATTGG TTGCGAAAA CAATCCTTGG TTTGGGGTTT 120
 CGGTCCGAG GGTCTAATT 140

(2) INFORMATION FOR SEQ ID NO: 2437:

35 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 400 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

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(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2437:

45 GAACCGGAAC CACCGTGT TTTCTTTTCA GGTCCAATTG AATAAATGTT ATGAATAGAA 60
 TGGATAAAAA TATAATTATT TAAGTGTTAA AGTAAACCAA ATCATGATTT AAGATTATAA 120
 GAAGAAAAA TTGACTAATG TTAACAACCA CAATCATATG GGTGTGAACG TTTATACAAT 180
 CATCGTAAAA CTCAATATGC TTAATTTATT CAAAATGTTT GTCAATAAGT ACAATGAAAA 240
 GGAGATTGAT TTTTGAATAA AAAATATCTT ATGATTGTAA TTATAATTTT AATATGATT 300

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AAGATACGAT TTGAGACCA TGTGAAGGGA TTAATATAG

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(2) INFORMATION FOR SEQ ID NO: 2438:

- 5 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 59 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 10 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2438:

15 TCTGTTTGA AAGTTGCAGT TTGGACAGCA CCCGATGATT AGGTGAGTCT TTTGGTTTA 59

(2) INFORMATION FOR SEQ ID NO: 2439:

- 20 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 50 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

25 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2439:

TTGGTAAAC CGTTACAGTT GCAAGTTTGG AAGTGAGTTA TTTTGGTTT 50

(2) INFORMATION FOR SEQ ID NO: 2440:

- 30 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 50 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 35 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2440:

40 ATTAAAAATA AATTAAAGT TCCAGAACCA GTTAACCAGA ATATTACGA 50

(2) INFORMATION FOR SEQ ID NO: 2441:

- 45 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 54 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

50 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2441:

TGCTGTTTGG GCGGTTTTTC TCCGTTTGGT TGAGTATGTG GTGTACCTTT TGTC 54

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(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 56 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2442:

GTGTGTGGGT GTGTGTGTTT GGGTGTGTG GGTGTGGGT CTGGGTTTCGT TGGTGG 56

(2) INFORMATION FOR SEQ ID NO: 2443:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 264 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2443:

GAGACAACT AGTCGCCAG AACGGAAATT AAGTAATCAT AATAATTACG GAAGTGCACT 60

TTTGTTTTG ATTTATCATT GATGGAAATT AGAACAATT ATCGAATGAT ATTAAAAATTA 120

CATAACATCA TGTGTAATGT GAAATTAGGA TGAACATTA CTGTnTATT TGAAAAACCT 180

TCAGTTTITA AATCACTAGT ATCACAATA AAGCGACTTA AATTCGATTC GTTAATAATA 240

GATAATGCAA ATTAnTAG CCCT 264

(2) INFORMATION FOR SEQ ID NO: 2444:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 67 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2444:

CCGCTTTAG TACGTACGTT GTTTCGCGGG CTTCGGGTGC TTTCTGGGTG TTGGTCATTG 60

TATTGGG 67

(2) INFORMATION FOR SEQ ID NO: 2445:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 58 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2445:

AGCTGCATT CTCTGCAGG CTATCAGCAT CGATATCTGT ACCATTTAGT GATCATGC 58

5 (2) INFORMATION FOR SEQ ID NO: 2446:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 53 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: double
- (D) TOPOLOGY: linear

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(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2446:

15 AACCAAAACA AACATTGTGT CGTTAAATA TTGACACAGA ACATAAGTTC TGA 53

(2) INFORMATION FOR SEQ ID NO: 2447:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 50 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: double
- (D) TOPOLOGY: linear

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(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2447:

CACAAATTAC ACCATTGTGT AntACTAATA CTtncCTnTT CATTGTtTTA 50

30 (2) INFORMATION FOR SEQ ID NO: 2448:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 75 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: double
- (D) TOPOLOGY: linear

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(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2448:

40 GCACAAACCA AACGCACCTT AACTGCTTTA AATGGCTGGA CGGGGGGTCA ACTGGCCTTA 60

ATGACACTTG AATCG 75

45 (2) INFORMATION FOR SEQ ID NO: 2449:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 71 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: double
- (D) TOPOLOGY: linear

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GCAGCCTTCA AGTGTITGCT ATTTGCTTTG GTGTACAAG CCATTATCTA CGGTCCCGCA 60
 ATTTAGCCCG C 71

5 (2) INFORMATION FOR SEQ ID NO: 2450:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 351 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

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15 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2450:

TGGCGTGAGG AAAAATATCA TGTATTGTTA CACAGTCAAC AGTCTTACCA AATGATAAGG 60
 AATGCTTTAA AAACGGATTT ATCACTTCAT CAAGTTCAAC AAATGATTGA TGTGCTTTG 120
 20 TTAATTGAAC CGGGTATAGG AAGTGTATGT AATGCTTTTG ATCATATGTG GGGATATTTA 180
 AAAAAATGTG CGAATGAAGA AGGAAAGACA ACAATCAAAA CTACTTAAAA GCTGATTTTA 240
 TTAATGGnA AAAATCGACA CCCCAACTTT AITAGATTTT TTAGCAGAAC TTGCCTAATA 300
 25 AATATGGAnG TCAATATTTA CTACAAAGCC GnGTTTTTAA ACCCAAAAAA G 351

(2) INFORMATION FOR SEQ ID NO: 2451:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 54 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

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35 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2451:

GTGTACCGCC TCGGCTGGCG TTCGCGGTGG GTGGTGGGTT CGGTGGGTGT CTGG 54

40 (2) INFORMATION FOR SEQ ID NO: 2452:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 50 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

45

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2452:

50 TGCCATTCCA ATGTTACCAT CGTCTTGGTA CTACTATATA CTGGGGCTAT 50

(2) INFORMATION FOR SEQ ID NO: 2453:

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(A) LENGTH: 400 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

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(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2453:

10 AGACGTGTTT CCACGGTATG GGATAATGA AGCACCGACT GATAAATCAA TATAGCCTCG 60
 TGTTTTTAGT TTACCGAAGC TATCCCTTGA TAATGATTGT GACATCTGGG GATAATATTT 120
 CATTTTCTTA GATATCGTGG AAATATCACC GATTACTTGA AGTCCATCTG TCGTAAACAA 180
 15 TTCAATTCTG CTTTGTGTTG TTTTACTTGG GGCGTATGTC ACTTCGGCAA TATATCGTCT 240
 AACTTCAGGT GTCATTTTCA ATAACGCCCTT AATCATATCA TCTTCTTTTG TACCTTTGAA 300
 ACCATCCATG ACAGGTGCAT CATTAAATTTT GACATCATTT GAACCTTTAA GCAATTTACC 360
 20 ATTTTCTAAT AAAGGTAAAT ATTTACCTTT ATATTTCACT 400

(2) INFORMATION FOR SEQ ID NO: 2454:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 156 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

25

30

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2454:

AGAAAGAAAT ACCATTGGGA GATAGAGACT CGTGTTATTT CTAGCGSATG GGAGATTTTT 60
 35 ATAATAAAGA AGATAGNAG AAAATTATCA AAGGTTATGA AAATAATTAT GGTAGAGGTA 120
 TTAATATICC TCGAGCACAT AGTATATATT TATATG 156

(2) INFORMATION FOR SEQ ID NO: 2455:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 77 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

40

45

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2455:

ACTTAGTGTA TATGAATGT GGTCCGCGAC GATCGTCAGT AACAAAATAA CAGGCAGTCA 60
 50 TTGGATTATG TTTAACG 77

(2) INFORMATION FOR SEQ ID NO: 2456:

55

(A) LENGTH: 65 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

5

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2456:

10 AGTGAAATCG CTAAGAAAA AGATGGAACC TCGGTATCTA ATACACAACT TCTTGAACGT 60
 TTTTA 65

(2) INFORMATION FOR SEQ ID NO: 2457:

15

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 54 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

20

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2457:

25 TATCAATAAT TGCCACTGTC AATGACTGAT TAATTGAGG TGCACATAAG CCAG 54

(2) INFORMATION FOR SEQ ID NO: 2458:

30

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 166 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

35

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2458:

AATTTTATT CGAGATTCTT CAATATAGAT GTTCTTCAT TAATTGATT CTCTAACTCT 60
 TGCTTACTAC CTAATAGTIT ATCTAATTCA GCTTAGCTT TTTCATTTTC TTTAATTATA 120
 TTAATTCAT TATTATGTT CGTATCGTA TTATTAGTT CGATAA 166

(2) INFORMATION FOR SEQ ID NO: 2459:

45

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 66 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

50

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2459:

55 CCAATGATTA AGCAATACAA TCGTCACTAA AATTACACG ATAATCTGAA TCATCGTCAT 60

55

(2) INFORMATION FOR SEQ ID NO: 2460:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 103 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2460:

AAATCAAAAA AATGTATAAT GAAAAGAAAA AGAAATTTGG AAAAAATTGG GAAGACGCTC 60
 AAAAAGCTGG AAAAGCTGTA GGTGAAGATT TGAGTGTHAA TGG 103

(2) INFORMATION FOR SEQ ID NO: 2461:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 52 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2461:

TTTATATCAG AATAGAATAG TAAACTAAGG CATTGGAGA ACTIATTCCA TG 52

(2) INFORMATION FOR SEQ ID NO: 2462:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 113 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2462:

CAGCAGCGAA TTTTGGCGT CCAAGTGTAGA ATGGATGTGA ATCAGATGAA ATATCTAAAC 60
 GAATAACTGG GTATTCTTTT CCATCTTCCC ACTCCATCAT TTCTGAAGAG GTT 113

(2) INFORMATION FOR SEQ ID NO: 2463:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 255 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2463:

CTAACATAAT TGTTAACT AAAATATTTA CTACTTTTAG AACTGTGCGA TTAAATACAA 120
 TTGTCAATAT TGTTATGACT AGGCTAACGA TACATAAAAT AAAGAAACCG TTAAAGACTA 180
 5 AAATTAAGCG ATCGATTCTT TGTGTAAAT CATTGATATT ACCCAAATTA ATANTTAATT 240
 GGATGCATT nCCAA 255

(2) INFORMATION FOR SEQ ID NO: 2464:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 58 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2464:

TATGCGACAA TTCGAAACAT TTTATATGCA AAAGTTATA CAACAGAGAA TGTTGATT 58

(2) INFORMATION FOR SEQ ID NO: 2465:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 65 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2465:

TGAATTTCAT TACCACATAT CGGACATTGA TCTCCAATAT TTACAGCAGA TTTAATTTC A 60
 CTTAT 65

(2) INFORMATION FOR SEQ ID NO: 2466:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 51 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2466:

CGTGACCTTC AAAGACCGAA CGAGAGAGTT GAAGAGCATT TCGAAGGCC A 51

(2) INFORMATION FOR SEQ ID NO: 2467:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 55 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2467:

AGTTTGTTAA GTTTTAGITT ACTAACTTTT CCATTAGATA TTATTAATGA AAAAC 55

(2) INFORMATION FOR SEQ ID NO: 2468:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 76 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: double

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2468:

TTGTTGGTAA GGCACCTTCTT AAATATCAAC AACGCGATGA TATTTTCATT GGTACAAAAG 60

TAGGCAATCG TTAAAC 76

(2) INFORMATION FOR SEQ ID NO: 2469:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 71 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: double

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2469:

CTTCTATAAT AAAACCATCT GCAATTAAGT CTTCAATAGA CGATGGATTT CTATTATGTA 60

TCAATGCATA C 71

(2) INFORMATION FOR SEQ ID NO: 2470:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 52 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: double

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2470:

CITCGTCATT GTATCGAGC GCCTGTATAG CTTGCTCAAA TGATGCATAA AT 52

(2) INFORMATION FOR SEQ ID NO: 2471:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 108 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: double

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2471:

AGAGGTTATG TTGATGTGCT TTATTTTCAT CAATGTCATT AACACAATCA TATTCTTCT 60
 5 GTTAATGCAC TGTATTATAT TCAAACGCGC TATCGACAAT TAATTTGn 108

(2) INFORMATION FOR SEQ ID NO: 2472:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 400 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2472:

GTCCCCAGTT GATATAGGAT CACAGTTTAA TATACTTGGT GAGATAGTAA TACTATTATT 60
 20 AATTCAAATA GGTGGTCTGG GTATCGTGAC CGTAACCCTA TTGACACTAG TATTTTAA 120
 TAGAAAGATA TCAATGAAAA ATAGATTCTT GATTATGTTT ACATGGAATA TTGACGAACC 180
 TGGTGGTGTT ATTAAGCTAA TTAACACTT GGCTATTTAT AGTTTAGTCA CTGAATTAAT 240
 25 TGGTATGATT TGTTTGTGTT TATCTTTTAT ACCAAAAATT GGTATAGGCA AAGGTTTATT 300
 TTTAAGCTTA TTCACATCAG TATCAGCTTT TAATAATGCT GGGATTGGCC CTTTTAAGA 360
 30 ATAACTTAAT AGATTATTCT AGTGATCCAA TTGTCATTAT 400

(2) INFORMATION FOR SEQ ID NO: 2473:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 147 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2473:

CTTCAAATAC TAAATCAGCG TTGCTAAACA TACCGTATAC ATTTGATGGC GTTGATAACG 60
 CGTCTCGGCG TTCTGTTAAT AACTTTTCAG TTTCAGCATC TAAATATGGA GGACGTTTTT 120
 45 CATTAAATCAA CTTCAAATCA AATGCGA 147

(2) INFORMATION FOR SEQ ID NO: 2474:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 62 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2474:

5 CTTTAGGTGC TTGTGGTAAT TCTAATTCAC AAGATCAAGG TAACAAAAC TGAACAAAAA 60
CA 62

(2) INFORMATION FOR SEQ ID NO: 2475:

10 (i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 50 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

15

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2475:

20 CCTTTAAAAAT CATCTAGAAT ATCTCTTGAG AAAAATTCGA AATCTACAGT 50

(2) INFORMATION FOR SEQ ID NO: 2476:

(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 113 base pairs
(B) TYPE: nucleic acid
25 (C) STRANDEDNESS: double
(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2476:

30 ATAGTGGTTA GTCAATGTAA TTAATGAGA ATAGAATGGT GATTTCATCT TAGCTTGATA 60
ATTAGCAGAA TCTTTAAGA AAATTTTGTC TThCAAGCCT AAGTTTACAA CGT 113

35 (2) INFORMATION FOR SEQ ID NO: 2477:

(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 51 base pairs
(B) TYPE: nucleic acid
40 (C) STRANDEDNESS: double
(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2477:

45 CGTAACTAAC TCAATTACT GAAAAATCG CTTGCGATGC AATAGCATTT G 51

(2) INFORMATION FOR SEQ ID NO: 2478:

(i) SEQUENCE CHARACTERISTICS:
50 (A) LENGTH: 60 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double

55

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2478:

5 TAGTTGCCGC TACGTTTATA CTCGTATTAA TGAATAAAAC TAGCAAAGAA TCTAAAAAAG 60

(2) INFORMATION FOR SEQ ID NO: 2479:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 52 base pairs

(B) TYPE: nucleic acid

10 (C) STRANDEDNESS: double

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2479:

15 TCGGACATGA TGGTAAACC GTATTGGGTA TTCGACTGA CACCTTAAGG GA 52

(2) INFORMATION FOR SEQ ID NO: 2480:

20 (i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 133 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: double

(D) TOPOLOGY: linear

25 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2480:

30 TTCTTAATTA AGGATTAATA AGGGTTTCCT AATTAGATTA TAATTCCGGG ACCTGGATGG 60

AAAAAGTTT TTAACTTTTC CATCTGTGCC CTTTTTTGA TTTTCGATAT AAAAAAAGCG 120

CAATTATCTC TAT 133

(2) INFORMATION FOR SEQ ID NO: 2481:

35 (i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 400 base pairs

(B) TYPE: nucleic acid

40 (C) STRANDEDNESS: double

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2481:

45 AAATGTTTTG GAAGAACGTA AGAATAATCA ATCTGAACA ATGCACGAT ATGAAGAAGA 60

ACAAGAAAAT TTAATGGAGC TTTAGAAAA TATATCAAT GAGATTCTG AAGCTCAAGA 120

TACTTAAAG TCTCTGAAA GTAAACAAAA AGAACTCAAT GCTGTCATTC GTGAACCTGA 180

AGAACAACCTA TATGTTTCAG ACGAAGCACA TGATGAAAAA TTGAAGAGAA TTAATAACGA 240

55

TACTATAGAA GAGAATGAGG CTAATAAATC CAGACAGGTT CTCGTTAGTT GGAGTTTTGA 360
GCCATTGAAA GTATTChGGG GGCCAATTAA AACCGCCAAA 400

5 (2) INFORMATION FOR SEQ ID NO: 2482:

(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 68 base pairs
(B) TYPE: nucleic acid
10 (C) STRANDEDNESS: double
(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2482:
15 AAGGTGCATA GTCAACAACA TTACAGCAT CATTGTATTC TGAAC TAACC GAAACATTAT 60
ACTTACCG 68

20 (2) INFORMATION FOR SEQ ID NO: 2483:

(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 50 base pairs
(B) TYPE: nucleic acid
25 (C) STRANDEDNESS: double
(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2483:
30 ATGAGCCnAC ACAGTGCTGA GGTAATCAAC GGTACAGTGG TTAGTGTGAT 50

(2) INFORMATION FOR SEQ ID NO: 2484:

(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 213 base pairs
(B) TYPE: nucleic acid
35 (C) STRANDEDNESS: double
(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2484:
40 CGGAAC TCGT CGAATAACTT TTTAGATTCT TCGTTAGCTT TTACATTAGC GAATGCTTCT 60
45 nTGATTGCTT TGTAATCTTC GCTTCTCTT AAAGCTTGIT CTAATTGATT TGCATAATCA 120
TATAAAITTA CTGCATGGT TATAGCACTC CTGGTnGTG ATGTTTATTA AAACGTTCGA 180
50 TATTACTTTA CCACATCTCG CTTTTT TAGA CAA 213

(2) INFORMATION FOR SEQ ID NO: 2485:

(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 376 base pairs

55

(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

5

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2485:

GACCAAAATT ATCTTTAGCA CTTATAGGTA TCTTTTAAAT ACITTTGTGAG TTTTCTATG 60
 10 GCATTCCTTT TTTAGGTGCA ACGTTTATTT TAAGTTTGG ATGCGAGCCT TTA CTCTTA 120
 ATGCATTACT TTATCTAATT CTTACTATTA TATTATTAGT GAATAGACAA AATGCGATTA 180
 GACCTATAGC GATTATTCCA ATATTGGTA TAGTAGGTAG TTTTTAGCT ATTATCCCCT 240
 15 TCTTAGGAAT TTTGATTCAT TGGATTTTAT TTTTCCTAAT GATTCCAnTT GTCCTAGTTG 300
 GATTATCAGC GCCAACCTAT ATACCCAATA AAAATGCTCG TGNChTTTTA CACACAATAC 360
 AAAGATGGAC CTAGAG 376

20

(2) INFORMATION FOR SEQ ID NO: 2486:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 51 base pairs
 (B) TYPE: nucleic acid
 25 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

30

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2486:

TTGACCTTGA CGGAAACTTT TTTCCAAGTT CTAAAAGTGG GCCAAATCT T 51

(2) INFORMATION FOR SEQ ID NO: 2487:

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(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 103 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

40

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2487:

GAATTTTGGC ATACACATAC ACTTTAAAAG ATATTATTGA AATTACAGGT GTAACAAAA 60
 45 GAACTTTACA TTATTACGAT GAAATAGGAT TATTAGTTCC AGn 103

(2) INFORMATION FOR SEQ ID NO: 2488:

50

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 106 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

55

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2488:

AATTACATTA GCACCAATCC ACACATCATT TTTAATTGTT GTACGGCTAG GTTGGTCATT 60
 5 AAAGTCTATA AACGTTTnCT TTAAGTTAAA TGGATTATTA TTTAGA 106

(2) INFORMATION FOR SEQ ID NO: 2489:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 61 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2489:

TGAATTTGCT TGAGTCGTGC TGCTGATAAC AATAAAATTG CACATGATA AAGAATGACG 60
 20 C 61

(2) INFORMATION FOR SEQ ID NO: 2490:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 400 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2490:

GCTCGTATGA TACAAATTCA TAATCTGAAA CTTCTGTCGT TTGTCGAACA TGTGGTAACC 60
 AATTCTTCAA GATGCTGTAT ATTCTGCGT AATTTCGTC ATTCTGTAAT AACCTCAACT 120
 35 TTAAGTATGC ACCTGTTTG ATATAACGCA TTAAGAAATA TTGATCTATA TCTCCCTTAT 180
 CTTTAAGATG TTTTACAAAT GGATACAAAT TGTGATGAT AAATGTATCT TGCGATGGCT 240
 40 TATGATATG AATATGTAAT GCAAAACAGT CTTTGTGATA TTCAATATCT GTATTTTTAT 300
 ATTTTGAAT TTCGATTTCG GGTCTCGAT AAGATGATTT TTTATAAATT GGTGTAACAA 360
 TTTCATACAC ATGATCATTC TTTGATTGAG GGAAAAATGA 400

(2) INFORMATION FOR SEQ ID NO: 2491:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 57 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

GACTGTTTTA TCGCAACTAT TTACACCTAT ATTATCGTGA GTAGGACATC TCGTCGG

57

(2) INFORMATION FOR SEQ ID NO: 2492:

5

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 53 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: double
- (D) TOPOLOGY: linear

10

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2492:

15

CATTGAACCTT GCTTTTGACG TACACCAGTA ATCAATGCCA TAATACGATC CGG

53

(2) INFORMATION FOR SEQ ID NO: 2493:

20

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 50 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: double
- (D) TOPOLOGY: linear

25

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2493:

AATACAACTA ACATACACTT ACCCATGTCC GAAGTCcntG TTGAGGAATG

50

(2) INFORMATION FOR SEQ ID NO: 2494:

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- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 65 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: double
- (D) TOPOLOGY: linear

35

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2494:

40

GCTGTTTAGC TTGCTCAAAT GATGCATAAA TATCTGATGC AACTATCATA TCAGCTAGTT
CATCA

60

65

(2) INFORMATION FOR SEQ ID NO: 2495:

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- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 322 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: double
- (D) TOPOLOGY: linear

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(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2495:

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ATTAAGCTTT CTAAATCATT GATGTTAGGA GCTAATGTGC TCGATAAGCA GAGTAAAGAA 120
 GAATTGCTTA AACAAAGCTAA ACATATAACA GGTTTAGAAA ATCCTAANTAG TCCTACACAG 180
 5 TTATnGGCTT GOTTAAAGGA TGAACAAGGA TTAGATATAC CTAATTTACA AAAGAAAACG 240
 GTTCAGGAGT ACTTAAAGGA AGCAACAGGA AAAGCTAnAA AAATGCTAGA AATTAGATnG 300
 CAAATGCTTA AAACCAAGTG GA 322

(2) INFORMATION FOR SEQ ID NO: 2496:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 59 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2496:

ATCAGTGTTA ATTCGCACGG AATTTCCTTC CATTAACTA ATCCGATCAT ATAATGGAT 59

(2) INFORMATION FOR SEQ ID NO: 2497:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 126 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2497:

CTAATTAAGC CAAAAGGGA AGGGTCCACC AACCCTTGGT TTCCCCCAT TGCCCGGAAA 60
 CCACCAGnAA GTTTAAAGCT TCCCTTTAAG CCGTCCGATG GGTAGTCCGA ACTTTACCGT 120
 TCCCGC 126

(2) INFORMATION FOR SEQ ID NO: 2498:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 58 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2498:

CAGTTTTCAG TTAGTGGCA TAGAGTCTGC TCATCAGTTC CTGTCTCC 58

(2) INFORMATION FOR SEQ ID NO: 2499:

(A) LENGTH: 90 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

5

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2499:

10 TCATGATGCA GACGCAACAG CATTGGTTA TGAATATGGA CAAATACCAC AGATGCCGGT 60
 AGCATTTCAA TCAAGTAAAC CTTTAATAGA 90

(2) INFORMATION FOR SEQ ID NO: 2500:

15

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 292 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

20

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2500:

25 TGCTCAAAGT CGTGTAGACA GCCAACTAAT GCATTTTCAA GATCAGTGAC ATCTCCGACA 60
 CCAAAGAAAT CACCGAATAT TTTTGCATGT TCGATTTTAC CTCGTTTAAAC ATCAAACTTA 120
 ATTTGTACAA ATCCTTTTTC AAATTTTTC TCGGGTTCAA AGTTATATTT AGGGTTTCTA 180
 30 CCATAATTCC ATTCCCAAGT TCTATATTG TCGTTACTTA ACTTTTCAAT ATTAATCCAA 240
 TCTTCATCCG TTAATTGATA TTCTTCACT TCAAGTTTCGC CAAAGATAGT TT 292

(2) INFORMATION FOR SEQ ID NO: 2501:

35

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 58 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

40

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2501:

45 GGTGTGTGTA GAGTGTGAGA GTTGGGGGGG GAGTAACGTG GAAGTTGCCC GGACAGCA 58

(2) INFORMATION FOR SEQ ID NO: 2502:

50

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 50 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

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ATACGGGAGG TATCAGCAGC TACGTGCAGT CGGTAATGGA TcnaAATACG

50

(2) INFORMATION FOR SEQ ID NO: 2503:

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- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 400 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

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(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2503:

15

ATCCCCACTC TTTTAAAT GATTTAACCA TATTTTATT TTAAAAATAA TATCCATCAA 60

AGTGTATCAA TAAATTATC ACATGTCAGA AAGTATGCTT CATCTGAATA CACCAATACT 120

CTCATGAAAC TTATTAAAAA TTACTCTCTC AACGTAAAAA ACCATTCAAA TTCATGAATG 180

20

GTTTGGAAGA ATGATTCATT GTTACGCTAT TTAATCACTA CATCTTAATT ATTGTTGCTC 240

TAAACGATTA CGCTTACCAT TTAAGAAAGC ATAAACGAGA CCTACAAAAA TACCGCCACC 300

GACAAAGTTA CCTAAGAAAG CAAAACGAT ATTTTTTAAA ACGTGTAACC ATGAAACTGC 360

25

ATCAAGGGTA AAGAATACCA TACCTGCATA TAGACCTGCA 400

(2) INFORMATION FOR SEQ ID NO: 2504:

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- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 355 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

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(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2504:

ATTATCTATG AATAAAATT ATAATAACA TATATTGAGA AATCTCTAA TACCTATTAT 60

40

TACATTTTTA GGTGCTGATA TTGTAAGTAT TTAGGTGGA GCGTGATTA CGGAGACTAT 120

CTTTTCATAT AACGGTATCG GTAAATTATT TTTAGAATCG GTAATAGGCC AAGACTATCC 180

ATTAATGATG GCATTACGT TATTTTCTC ATTTTAGGT TTAGTGGTA ATTGATTTC 240

45

TGATATTACT TATGGATT TAAGTCCAAG AATTAGAAGT AACTAGGGGG GATTAGAATG 300

CAAAATAAGT CAAAATCGCC TTAAAAATT GCATTTTCTA AATTAAITCA TAAATA 355

(2) INFORMATION FOR SEQ ID NO: 2505:

50

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 254 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double

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(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2505:

5 CCGTTAGTTC CATAACATAT TTTTCTCTAT AAAATAATTT AACATCTAAT TGCCTTTCTA 60
 ATTTTCAAT AGGGGTAGAT ACAGTTGACT GTGAATAGTT AAGTAACTCT GATGCTTTAG 120
 TAAGGTTCCT TGTTTCACTA GTTACTAAAA ATGATTTTAA AATGTTTAAAG TTCAAAGTAG 180
 10 TACCTCCTTT AGGGTTCCTT TTTATCGAAT CCTGAATTCCT AAGAATTCCTG ATTTAATAAT 240
 AATATATnAn ATAT 254

(2) INFORMATION FOR SEQ ID NO: 2506:

15 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 268 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2506:

20 AACTCCACCG TGTAGTTGCG CTTTCATCGCC TTGAGGATGC GATTGGCGCC GTGCTGCGCG 60
 25 GCACGTGCAG ATAGTGCAG CACTTGGGCA GATCGCGCAC CGCCTCCAGC AGGTCGTCGG 120
 TCATATCCTT GGGATAGTTC GTTACGANTT GGATCCGGTC GATGCCGTCG ACATCCGAGA 180
 30 TGCGGCACAG CAGGTCGGAC AGTCGCGTTG nCCGCTGGCA GTGTCGTAGT GGTAAATGTTT 240
 CACGGTTTTG ACCTAGCAGC GTTCACCT 268

(2) INFORMATION FOR SEQ ID NO: 2507:

35 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 66 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2507:

40 AAAAGTGGCT AATATCATCA GCAGAATGTA TAACATAATC GAATTGCAAC CAGCGATTAT 60
 45 ACCTTT 66

(2) INFORMATION FOR SEQ ID NO: 2508:

50 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 53 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2508:
 ACCTCCGCTT CAAATGTTCAT TGATAGACAT TTAAAGCGGA GGCAATGACA TGT 53

5 (2) INFORMATION FOR SEQ ID NO: 2509:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 50 base pairs
 (B) TYPE: nucleic acid
 10 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2509:
 15 ACCCTATGAn AGATGAAGTn ATTAACCAAA AACCACTGTG TGTAATATTA 50

(2) INFORMATION FOR SEQ ID NO: 2510:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 57 base pairs
 (B) TYPE: nucleic acid
 20 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

25 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2510:
 TTAACCTATT ATATTAATTT TAGTATCAAT TCTTCTCCA GTTCCTGCGT CATTTTT 57

30 (2) INFORMATION FOR SEQ ID NO: 2511:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 51 base pairs
 (B) TYPE: nucleic acid
 35 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2511:
 40 ACGTGITCAT AACCCATAAA GCGAATATG GTAACACCGA ACATCATGAC A 51

(2) INFORMATION FOR SEQ ID NO: 2512:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 101 base pairs
 (B) TYPE: nucleic acid
 45 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

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GTAAAGCGGT CCGCGCTTAA AGCGCTTGCT AACTTCGAAC AATGAATCTG CGGAACATCT 60
 TCGGAATCCA CGAGATGATC TCATATGACG GGCAGCGAGG T 101

5 (2) INFORMATION FOR SEQ ID NO: 2513:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 67 base pairs
 (B) TYPE: nucleic acid
 10 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2513:

15 GGGTAATGTA ATAGTATTCA TCTACATCAT CTTGATCATC GTAATGCTGA TTGTACCCTT 60
 CTAATC 67

20 (2) INFORMATION FOR SEQ ID NO: 2514:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 50 base pairs
 (B) TYPE: nucleic acid
 25 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2514:

30 CCCGTCGTTT TCGTGTATTT CGCGGCGTGT CTCCTGTTG CGCCTCTACT 50

(2) INFORMATION FOR SEQ ID NO: 2515:

(i) SEQUENCE CHARACTERISTICS:
 35 (A) LENGTH: 275 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

40 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2515:

AAGAAAATAT CTCTTGAATA CTGATCGATT GCCATCGAAA AACACTGTGA AATCAAGTTG 60
 45 CCCAGTCCAT TGTGTTCAT CCATTATGAT AATCCTTTGA GTAAAGTGTC GCGTTCAATC 120
 CAATCGATAA CTTATCCAA ACCTTCGTCG GTTTTAAAGT TAGTAAAAGT AAATGGACGT 180
 TTACCACGAA ATACTTTAGT ATCTTCAGCC ATTTGTTCTA ATGATGCACC TACATAAGGA 240
 50 GCTAAATCAG TnTTGTTAAT TACAAAGACA ATCTG 275

(2) INFORMATION FOR SEQ ID NO: 2516:

55

- (A) LENGTH: 59 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: double
- (D) TOPOLOGY: linear

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(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2516:

10

CTGCACCACC AATAACGTAA ATACTGTATA TACTAGTAAT CGCTAATACA CCGATATTA 59

(2) INFORMATION FOR SEQ ID NO: 2517:

(i) SEQUENCE CHARACTERISTICS:

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- (A) LENGTH: 119 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: double
- (D) TOPOLOGY: linear

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(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2517:

TCTGCTACTA CGTATACGAT AGAATGGATT TCTTTTGAA CGTAAACGTG TTAAACGAAT 60

TTTAACTGCC ATTATAAAA TCTCCTTTAA GTCATGTTTT AATTTTTATT TTCTACAG 119

25

(2) INFORMATION FOR SEQ ID NO: 2518:

(i) SEQUENCE CHARACTERISTICS:

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- (A) LENGTH: 60 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: double
- (D) TOPOLOGY: linear

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(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2518:

ATTTCCTTTT AAGTTTTTAA AAATCCAAAA TCCTTGTTGT AGGGCCATGA AAGGGTTGGG 60

(2) INFORMATION FOR SEQ ID NO: 2519:

(i) SEQUENCE CHARACTERISTICS:

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- (A) LENGTH: 294 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: double
- (D) TOPOLOGY: linear

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(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2519:

ATAGAAGTGA AGCACGTAGA TTGAAACGAT GGTAAATAA CGAGAGACAT TTAGAAAAACA 60

50

ATAAAAATGA GGAATAATCA ATGATACATG GAATTGGTGT AGATTTAATC GAAATCGATC 120

GAATACAAGC GTTATATAGT AAGCAACCAA AATTGGTTGA GCGGATTTTA ACTAAAAATG 180

55

GGTTTGCTAC AAAAGAAGCG TCAgTAAAGC ATTAGGCCCC GGCCTnnGGA AACA

294

(2) INFORMATION FOR SEQ ID NO: 2520:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 145 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2520:

TTTTAGGCGG AAGAnGTAGT AATTTCGGT CTTTAAGGG GCGGGTGGT AACCATGGCA 60
 ATTAATCCCA GGGATGACCT TACCTAATAA CCACCTAATA ATTACCCGA CCAAGGTGG 120
 AATAATCCC TCGGTCCTT CCGG 145

(2) INFORMATION FOR SEQ ID NO: 2521:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 169 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2521:

TTTtagTCAC CAAAATTCTC GCATTAACT GATACGAATG TGCAATAACT AAAAATCGAT 60
 CTAATAATTG CGTTGAAAAA TTGGCTCGA CAGCACTCAT TACAATTACn AGTGATCTA 120
 TATTACTTAC AGTGGTCTT TTCAACTCAT TTCCCGCTC AAACACTTG 169

(2) INFORMATION FOR SEQ ID NO: 2522:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 88 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2522:

ATCCAGCCIT TCAACAAATA AATCTGAAAT TCGATGTTCT AAAATTTCTG CTTCTTGATG 60
 TACTTCTTCC CAATTATATT TCAATATT 88

(2) INFORMATION FOR SEQ ID NO: 2523:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 228 base pairs

(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

5

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2523:

CAGTAACATC	AATCTGTCCT	GTAAGCTTGT	GGTACTCCGA	TACAACCATA	AGTCAACGCA	60
CCACCAAAAA	CGCTTGGAG	CGTTCTACT	TATTAGTCCA	AGTTTAGACA	TTGAAATACC	120
AACAACTTTG	CAATCCATAG	TATCTGAAAA	TGTAGACATT	GCCTGCAATA	AATTTAAACn	180
ATCATTTTITA	TTATGTGGCA	TTACTGCTAA	TTTAAAGTAT	TCITGGGT		228

15

(2) INFORMATION FOR SEQ ID NO: 2524:

(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 119 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

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(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2524:

CTCATCCATA	GGCTGGTAT	TAGTATAGGT	GTCAAACCAT	TAGCGTATAT	CATATCTTCT	60
GGATGThCTC	ACATATTCAT	AGATGCACAT	TTTACTTCTC	TCGTACCTTA	GTACTGGGA	119

30

(2) INFORMATION FOR SEQ ID NO: 2525:

(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 357 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

35

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2525:

TACCAATATT	AAATTGAAC	ATTATAGTTT	GACCATCATA	ATCTATCTTC	TCTATTTTCAT	60
TATAACTAAT	ACTTCTATAA	TAAATTTGGC	CAITCATATC	TACATTCATA	ATTAATCTTT	120
CATTTGTITC	TATAAATGCC	CCTTCAAATT	CAITCTCACC	TTGAACITGA	TACTCAATTA	180
TTCCTAGCAC	TGACGGACCC	TTTTTTTCAG	TIGGAAATAA	ATCAITTTGA	TTCAATTAT	240
CTAAATCAT	AATATCCCTC	CCACTTAAAA	CTATAAATA	TTCTTCATAG	GTATATGAAA	300
TACAAGTGAT	TAACTATTnA	ThATnAAGCT	TAACTTGTAT	TCCCTTTTTC	AGATAAT	357

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(2) INFORMATION FOR SEQ ID NO: 2526:

(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 261 base pairs

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(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

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(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2526:

CACGCGTCCG GCCACCTGGA CATGGCCGAC CTAGAAGCCA AGCTGCAnGA GGCCCAAG	60
10 CATCGGCTGC GCGTGGGTGG CCACTGATGG GGCCTTTTCC ATGGATGGCG ACATCGCACC	120
CCTGCAGGAG ATCTGCTGCC TCGCCTCTAG ATATGGTGCC CTGGTCTTCA TGGATGAATG	180
15 CCATGCCACT GGCTTCCTGG GGCCACAGn ACGGGGCACA GATGAGCTGC TGGGTGTGAT	240
GGACCAGGTC ACCATCATCA A	261

(2) INFORMATION FOR SEQ ID NO: 2527:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 108 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

25

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2527:

CTnTAGAGGA TATGAGTCC TCATCATAAG AATTTCGGA TCCTTAATAG ATCTCTTGCT	60
30 ATATATAATG TAATAGAAAC ATCTTTTAAG GATCCAGAAA TTCTTAGA	108

(2) INFORMATION FOR SEQ ID NO: 2528:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 109 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

40

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2528:

TTTTAAATA CTGGTAGAA GTTGGAAATG ATTAATCATT AATTATCTCT CAAGATGTAA	60
45 TGACTGTTC A GCACACTTT CCGATATGAA AAGAGATTG AAnACAATA	109

(2) INFORMATION FOR SEQ ID NO: 2529:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 150 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

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GATTAAATTT GITATACCTG GCITGTTGTC ACGATCAAAT TTAATAATAC CATCTGAATC 60
 AGTITACTGCG CTITTAATTT TTTTAGCTGC AACATTCGGC TCGTCTAATA ATGAAATnGA 120
 5 GTTTTAGCA TTATCATCAC TCITACTCAT 150

(2) INFORMATION FOR SEQ ID NO: 2530:

(i) SEQUENCE CHARACTERISTICS:
 10 (A) LENGTH: 127 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

15

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2530:

TTCTTTTGG CCAATGGCAG GAAGTACGGT CTTATTGGT GTTATGTAA GAAGGTATTC 60
 20 CCATTTATTT ATCGTTAAAT ATGnATATAG TATAGTAATT TTAATTGTT GCATCATAAT 120
 ACTAGGT 127

(2) INFORMATION FOR SEQ ID NO: 2531:

(i) SEQUENCE CHARACTERISTICS:
 25 (A) LENGTH: 122 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

30

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2531:

CACATAATGA TTCGAATTAT TGTTTAAATT AAACCTTTT CACATATGTA TAAATTTnA 60
 35 AGAGCGCATG CGTGAATATT TTCATTGAT TCAAAGGCAA AAGATAGCCT TATACTCTTT 120
 TC 122

40 (2) INFORMATION FOR SEQ ID NO: 2532:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 126 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 45 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2532:

AAATAATAGA GCAATTGGCA CATGTAAGAA TGCAAATTGA CTATGGCATC CAGTATTTTG 60
 GTCACAAATG GGTGTATAT GAGCATGTTG AAAAATAAGT CTTATGnTAA ACACTTAGTA 120

55

(2) INFORMATION FOR SEQ ID NO: 2533:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 101 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2533:

GAGAGCGGCC GCGTGTAAAG AGAGCGGCGT TCGTTCGCGT GACGCGAGTG TGGTTCGCGA 60
 GAAGHGGACC AGAGTTCGCC ATCGAGGCTG TTCGGGTAAA T 101

(2) INFORMATION FOR SEQ ID NO: 2534:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 112 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2534:

TTGTCATTAA AAGATTATCC CAATCAATAT CATCTATATT TGTTGTACCA CTATTATCTT 60
 TTTCTCTTTC TCTTACTTIG TnCATTTGTAC CAGTAGATTC AAGATATATT GT 112

(2) INFORMATION FOR SEQ ID NO: 2535:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 51 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2535:

ATAACGAATC CAAAAATATA GAGAATGACA GTGAACTTAA AATAGGACTC T 51

(2) INFORMATION FOR SEQ ID NO: 2536:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 56 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2536:

(2) INFORMATION FOR SEQ ID NO: 2537:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 158 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2537:

GGATGTACCA CCAGCATAAT AAACAACTTC AAATGGATTG ATAAAGAAGA nACCAGCAGA 60
 GATAGGTAAT TCATTACCAT GTTCTTCTTG TAGACGTTTA CTTTCTTCAA TCTTTTGCTC 120
 ATTGCAATCA AGTTGTGTGT GTAAGTTATC TCGTTTGT 158

(2) INFORMATION FOR SEQ ID NO: 2538:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 50 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2538:

TATATTCAAT AAATCCACAA AGCGGTCCCG TATAAACATG GGTTCCTCATT 50

(2) INFORMATION FOR SEQ ID NO: 2539:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 103 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2539:

AAAGTATACA TATCACTCAA CTAATCAATA ATCATACTTA CCTTCAACAA ATTCTTTAAC 60
 ATGCAGTGTG ATCCCTTGAT AATATGGATA TTtTGTTAAT CTA 103

(2) INFORMATION FOR SEQ ID NO: 2540:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 56 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

CAATCAATTT GTCTATCIGT TGAGTGGCAA CCTCTAATAA GCCTTTTATA TTGTCA 56

(2) INFORMATION FOR SEQ ID NO: 2541:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 126 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2541:

TGGAAATAAC GAAAGTATTA TTAATTAAAA GCATCTTTCT CCCAATACTT TAATGAGTGA 60
 TATTGTTTAT ATACCGTATA AAACACCTAT TTTnGAGGAA GCAGAGCGCA AGGGAAACCA 120
 TATTTA 126

(2) INFORMATION FOR SEQ ID NO: 2542:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 201 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2542:

ATCAGTTTCT TCAAAAATAA CTGAAGTATC TGATGCTGAA AATTGGAATA GTTGATGGGT 60
 CGGGnTATTG ATTTTATCT GATGTAAAAA TCCATAAGTG CCATAAGATG TATATAGTTT 120
 CTTTCATGTA AAGTGCCCCC TTAGTnTTT ATTTATTATA CGATGATAAA CTAGTCATTA 180
 CCACTATTAA TAATTGATTA A 201

(2) INFORMATION FOR SEQ ID NO: 2543:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 65 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2543:

GAACTTTATT ACAGGAATAG ATAAGCACAG TCGTGTACA CAGACGCTAA ATGCGCGTTC 60
 GTATG 65

(2) INFORMATION FOR SEQ ID NO: 2544:

(A) LENGTH: 102 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

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(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2544:

AGCTATTAAAT GCGCTATAA TTGATACAAT AGTTATGATT AATAAAAAAA TAACCGATAA 60
 CATTGCAATT TTATnATGAA TAAATTTAGG AAATGCAATT TT 102

(2) INFORMATION FOR SEQ ID NO: 2545:

15

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 50 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

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(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2545:

AATCTACATC CAGCATGATC nACATCanAG CnGGATTCAC CCTTACTTCA 50

(2) INFORMATION FOR SEQ ID NO: 2546:

25

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 100 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

30

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2546:

AACCATTCAA CACACGACAC TAAAGTGCAG TACAATCCTA CAAAACGATT GTTTTTATCG 60
 GGTGGTCTAA CCATTGAATA AATAATGAAT AATGGTAAnA 100

40

(2) INFORMATION FOR SEQ ID NO: 2547:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 156 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

45

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2547:

ATTGAAAATC TTTTATCAIT TCATACGTGT GCATAATTAA AAAGGTGAAA CCTCTATT 60
 TGAGATTTCa CCTTTTTAT TGTTAATTa AATTTAATT TAATGATTAT TTGTITTCAC 120

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(2) INFORMATION FOR SEQ ID NO: 2548:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 142 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2548:

AAAGTGA AAAA TTGGAGGTGT AATTTTGACT AGAACTTATA ATATTATTGG TATCCTTTCT	60
TGCTTTATAT CTTTATTAT TATGGCGTTA CCAATnATT GGTACACAGC TTCAGCATT	120
TGGTTCTTCC CAGGTGCAAT CA	142

(2) INFORMATION FOR SEQ ID NO: 2549:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 101 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2549:

CCCAACCTTA CnAACGACAT TACACAATCA GTAACAGATC GGTATTAAAGA CTGGATATCG	60
TGGCATCTGT TGAGTTAATA TCAACAGTCG TCCAGAATC G	101

(2) INFORMATION FOR SEQ ID NO: 2550:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 72 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2550:

TGTAACCATG ATTTAGATGA CTAACGTGC TTGCCAACAT GCTTCATCCA ATGCCGAATC	60
CTTTAGTAC AT	72

(2) INFORMATION FOR SEQ ID NO: 2551:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 303 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2551:

CAGTAAGAGG ACAAGGCTAT AAGGTGGAGA ATCATGTTTA AAACACTCTA TGCTAGAATT 60
 5 GCGATTATTT CCATTACGGT TATTTTATTT AGTGCAATTAA TAAGTTTTGT ATTAACAAAT 120
 GTTIACTATC ATTATAATTT AAAAGCATCT AATGACGCGA AAATCATGAA GACGCTTAAA 180
 GAAGCAAGAC AATATGAACA ATCAGCTAAA CCAACGCACA TTCAACAATA TTTCACnACA 240
 10 TTTAGGGTCA AATGGAATTA CCAATAATG ACCATGGATC CATAAAGGTC nThAGACCTT 300
 TTT 303

(2) INFORMATION FOR SEQ ID NO: 2552:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 150 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 20 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2552:

TTTACTTTAG CCTTATATGC ATTTGTAATT TATAGAAGTG CGAACAGGTG ACTACTGThA 60
 25 ATTTATGTGA TTAAGTTTC AATGATATTT GATTATATTAG ACCATTGCAA AAGCGCAAGS 120
 TTCTCATGTG CTGCTACAGT TTGCGGTCTT 150

(2) INFORMATION FOR SEQ ID NO: 2553:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 58 base pairs
 (B) TYPE: nucleic acid
 35 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2553:

GCATCGTCA ATAAAGATGA AGCAGCATTT AATCAATATA CGGCAGAATA CAAAAATT 58

(2) INFORMATION FOR SEQ ID NO: 2554:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 118 base pairs
 (B) TYPE: nucleic acid
 45 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2554:

AAAATCGTTG AATAATCAAT CATAGCAGTA AGCTATGThA TATATTTTITA AAAATTGA 118

(2) INFORMATION FOR SEQ ID NO: 2555:

- 5 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 102 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

10

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2555:

15 ACAACTTCAA AGAAATCATG TCACAAAAA AGTATTGAT TTTAATCATA nGTGGCGACA 60

ATCCGCATAC CAAAGCACA CTTTAGTCA ACCAATTCAG AT 102

(2) INFORMATION FOR SEQ ID NO: 2556:

- 20 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 242 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

25

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2556:

AGATGCATTA GCAGCATTAG ACGTTAAACC AGTTGGTATT GCTGATGATG GTAAGAAAAA 60

30 ACGTATCATT AAACCGATTA GAGAAAAAAT TGGGGATTAT ACTTCTGTAG GTACACGTAA 120

ACAGCCAAAC TTAGAAGAAA TTAGTAAATT AAAACCGAT TTAATTATCG CTGATAGCAG 180

35 TAGACATAnA GGTATTAAATA AAGAATTAAAn CAAAATTGCA CCAACATTAT CATTAAGAG 240

TT 242

(2) INFORMATION FOR SEQ ID NO: 2557:

- 40 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 248 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

45

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2557:

TGCACTCATA ATCATCGGAA TATGTATAGA ATCAACTATC ACTTTGCCGT GTTTATCTGT 60

50 GTTAAATGTG TAACCATAAC AGTGTGTCCC ATTGGATTA TGAATCTCAG AATAATCATC 120

AAAAATATCC TGAATTnCA AATTAAATTTC ATTATAGCGG nAGCAATGTC TATAAAATTT 180

55

TATTTCAA

248

(2) INFORMATION FOR SEQ ID NO: 2558:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 400 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

10

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2558:

15	TTTGGGTCGT GATTGAAAAA ATCTAAGGCT AATAAACCAT GTTGTCTGC GCTTAATAAT	60
	TGTTTGAGTA TACGGTTAAT AATTAACCTCT GTATCATGAG GGTGACGCG AAAGTCAGAG	120
	CGCATATAAG TCATATAATT CTCGAAGATT TCTCTATCAG TATTGCTTAA TCTTAATGAT	180
20	TTAACATTAT TTTCTTTTGT TAATTGCGCA GTACTTTTCA TIGTTACTTA AGCGTCCTT	240
	TAAAAATGTT TAATTCCTAAA TTAAGATGGA AATGATTTTA TAGTATTAAT AAGGTCAATC	300
	ATATCATATT AAACGCATAA ATATAACGAT TAATATTGGA GAGGAAAAATG AGGACACTTA	360
25	ATAAAGATGA ACATAATTAT ATCAAGCAAA TAGCTAATAT	400

(2) INFORMATION FOR SEQ ID NO: 2559:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 333 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

35

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2559:

	AAGGGAAATT TAAAAGTATC ATTIGATTAT ATAGATTGGA TTAAATTAGG TTTTGGCCCA	60
40	TCAGGAAAGG AAAACTACTA TATGTACAAA AAATTTGGTA TTTTACCAGA TATGGAATAT	120
	GAAATGGAAG AAATTCGAGC AGTAGAGAAG TATGTTAAAG AGCAAGAGTA GCAGACATGT	180
	TATAAAGAC TGTCGAAAT CACCCTCGTT TTACATTGGA TTCAAAGAAG AAGGTAAAAG	240
45	ATAAGAAATAT TTGCAACTTA AAAAGTCAAT nAGCTTATCG GTATCCATAC ATCATGGATA	300
	AATGAGTnCA ACTAATTAAc AATCAGCAT ATA	333

(2) INFORMATION FOR SEQ ID NO: 2560:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 87 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double

55

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2560:

GTAAAGACATT CACATTTATC ATTTCAACAC AATGGGTTTA CCAACCATGG TTAAACGAAT 60
 5 CCAAACTTT GATGCTCGTA TGTCTCA 87

(2) INFORMATION FOR SEQ ID NO: 2561:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 117 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2561:

TTGCATTTTG ACGTAAATGA TTAACAAAT CGTGATTATC TCTTAATTTT CTAACCGCCT 60
 20 TTCAATTTT TAACGCGTA ACTTCCTTA GAACAATGCC AAATTTATAT TTTTCAT 117

(2) INFORMATION FOR SEQ ID NO: 2562:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 60 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2562:

AAGTCAAACA AAATAAGCAA ACAGACTGGT CAGAAGATAA GTTGAATAAT ATAGCTTTGA 60

(2) INFORMATION FOR SEQ ID NO: 2563:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 80 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2563:

AAGTGATATT ATTGTGATCA TAAAGTGAAG TATTACCTTT TTTATTGTA ACCCGATTCC 60
 ATGCGCCTTC AACATAAACT 80

(2) INFORMATION FOR SEQ ID NO: 2564:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 64 base pairs

(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

5

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2564:

AGACATGGGC TTATCAGATA AAGTAAAGC ATTACCTAAA GGGGGAGGCG GTAAGTCATT 60

10

ACCG 64

(2) INFORMATION FOR SEQ ID NO: 2565:

(i) SEQUENCE CHARACTERISTICS:

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(A) LENGTH: 66 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

20

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2565:

GTITGTTTAT AGTACCTGG ATTTTCTTTA TTTCCATCAT GTGAACTGT GTCAGTGAAC 60

GCTGAT 66

25

(2) INFORMATION FOR SEQ ID NO: 2566:

(i) SEQUENCE CHARACTERISTICS:

30

(A) LENGTH: 75 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

35

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2566:

TTAATTATT GTGACGTATT ACACGCATTA CTITAGAAAG TGATTCCCAA AGCGAATTAT 60

CTTTACGATA AACTA 75

40

(2) INFORMATION FOR SEQ ID NO: 2567:

(i) SEQUENCE CHARACTERISTICS:

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(A) LENGTH: 50 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

50

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2567:

ATATTATTAT ATTGCTTTTT TTCAGTTTGC CGTTGTACT TTCATAACTT 50

(2) INFORMATION FOR SEQ ID NO: 2568:

55

(A) LENGTH: 223 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

5

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2568:

10 TTTTAGGATT TGTAGTAGGT GAGCGACGTA TTnnGGATGC AATCCAGAGA ACAATAAATA 60
 TTGAGAGAGA GCAATTTCATA ACGCAGTTGA AATACATGTG TTACGAATTG CTTTATGTGT 120
 AGTTTTTATC ACACAAGITT TTIGATGCAA CCCCCTGATA GCGAACTCA TATGTAGATA 180
 15 ATACAGCTTT TTCAGCATCA TCTACATGAA TTCCAAAACA TCA 223

(2) INFORMATION FOR SEQ ID NO: 2569:

(i) SEQUENCE CHARACTERISTICS:

20 (A) LENGTH: 58 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

25

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2569:

AATAATGCCA TACAGTGAAG ACCATGCGCA TCAATCGATG TCTAGTGTGT ACTACGTC 58

30

(2) INFORMATION FOR SEQ ID NO: 2570:

(i) SEQUENCE CHARACTERISTICS:

35 (A) LENGTH: 250 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2570:

40 GOTTTCATTA GTTTTAAATG ATCCCCAATA CTTTTGTGAC CTTCCCAAC TATGTTCCA 60
 ACACTATCTA CAGCTTTTTC TGTGGTATTT TTAACAGCG TCTATTTAAT GTCTTATCCA 120
 ATTAGTTTTA TCTCTTAATC CAAATTATT AGTATGAAAA GTCCAATTTT TAAGAATTGT 180
 45 CTAAACAGAT TCCGCAACAA AACCAGCTAA AAACCGTCCA TACTATTGGA ATnAAAACGC 240
 CAATGTTATA 250

(2) INFORMATION FOR SEQ ID NO: 2571:

50

(i) SEQUENCE CHARACTERISTICS:

55 (A) LENGTH: 174 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2571:

AGCTCCTTTC TTCTAGTTA ATATCATThA ATCTGTGTTT TCAGTGICAA AATTACCTGT 60
 5 AAAAAACAACA TTTTATCTT TTAAATATAGG GATTACACTT TCCACTTCTA TTTTATTAAT 120
 CTCAGATATT TTCATATGAA TTTTGTGAAA TCCTGAATCG AAAAGTTTAG TTGG 174

(2) INFORMATION FOR SEQ ID NO: 2572:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 390 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2572:

CATGCGGTAG GTATTCTAA TCTATGGACA AATGGCGGAT TTATGCCAAA TGGTATTGTT 60
 20 GGTTTCTTCT TTGCATTATC AATGTGAATT GGTTTCATACC AAGGTGTGGA ACTGATAGGT 120
 ATTACGGCAG GTGAAACTAA AGATCCTCAG AAAAATATCG TTAAAGCAGT GAATGGTGTT 180
 25 ATCTGGAGAA TTTTAATTTT CTATTTAGGC GCTATTTTGT TTATTGTTC AGTGTATCCT 240
 TCGAATCAAT TAGGAGACAT TGGAAGTCCG TTGTGTGCAA CATTGTCTAA AATCGGTATT 300
 ACATTTCGAG CTGGATTAAAT TAACTTTGTT GTATTAACGT CAGCAATGTC AGGATGnAAC 360
 30 TCAGGGnATT TGCAGTGCGA GTCGTAATGA 390

(2) INFORMATION FOR SEQ ID NO: 2573:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 50 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2573:

TAGAGTACAG AACATACGCA AGGAACTCGG AGTTTACTCA CGGACTThT 50

(2) INFORMATION FOR SEQ ID NO: 2574:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 59 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2574:

TACAATTACA AACGATCGT GAGATGTTTT AAGCATCAAT GAGAATCTAA CTCTCCAAG 59

(2) INFORMATION FOR SEQ ID NO: 2575:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 400 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: double
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2575:

GACACAACGT ATGACGCGT AAGAGTTGCG TGTGACAAT CAAGATGATC ATAGCCAAGT 60

TAGTCTAAAT GGTACACAA AGGGGTCTGA GAAAGATCAA GAAGCATTCA CTAATAATAA 120

GGATGAGGAA GCAGTTGCTG CTAATAATCC TGAATCAGAA GAATATAAAG TGAATGAAAA 180

AATAAAAAAA GAACATAAAA ACTTTATTTT TGGTGAAGGT GTTTCAGCG GTAAAAATATT 240

AGCGGCATTA TTATTCGGTA TGTTTATGTC GATTTTAAAC CAAACATTAT TAAATGTTGn 300

TTTACCAAAA ATTATACGG AATTTAATAT TTCTGCGTCA AnAGGGCAAG GTTGATGACG 360

GGATTTCATGT TAGTAAACGG TATTTTAATA CCAATTACGG 400

(2) INFORMATION FOR SEQ ID NO: 2576:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 122 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: double
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2576:

TTTAAATCGT ACCTTAAATT TGAAGTAAT AAGACACACC AATTACCTTC TAACCTATC 60

GATAGTTTCA AACAGAAAT CgntAGTACA TTCAGTTATT TAGAACGCGT TGATTACCAG 120

CT 122

(2) INFORMATION FOR SEQ ID NO: 2577:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 51 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: double
- (D) TOPOLOGY: linear

CACATTGAGG TGCAGTCATA CCTTGTTTAA ATGTCCAAGC ACGTACTTCT T

51

(2) INFORMATION FOR SEQ ID NO: 2578:

- 5 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 400 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

10

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2578:

15 AATTATGACT ACAGGTCCTGA CTCCTCCCTTG TTCAGATCCC TGTACTGGTG ATAAATCTGC 60
 TAAATAAACA TCTCCTCGTC TAATCATTCA TTCGTTGAAT TAGAAGATAA ATATGTTTCG 120
 TTGCAATCGC ATGCTTCACA CTCTATCGGA AAAGCTTCGT TCGCTAGGGA GAGATTTAAA 180
 20 TCAGCCATTT GTGAATATCC TTCTTTTAAA GATTGTCTTA AGCTATGACT TCTATTTTGA 240
 CTAAAGATA ACATATGAGA ACCTCCAATT GATTCACAAA GTTATTAAAT GACCTTTAAT 300
 TACTCTAATG ATACAAATTT TTATATGCAC TGACCATATT ATTTTAAACA TTCATTGTGT 360
 25 ACAAACCGT GGATCACCCA TCATGGATAG AGTCGGGGGn 400

(2) INFORMATION FOR SEQ ID NO: 2579:

- 30 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 112 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

35

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2579:

ATAAAAACCT AATTGACTCA TAATCTTCTA ACGGTATATC ATCCACAATC ACAGTATGAT 60
 40 TAGGATTATC GTTAGATACA TCTnTCACTG CCTTAICTAA CCCTCATCA CC 112

(2) INFORMATION FOR SEQ ID NO: 2580:

- 45 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 231 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

50

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2580:

CATGAnTnTA ACGGATTCAT TCCATATATC AATTGCGTTT GTTATTTTAA TAATGCTATT 60

55

ACTACAACCTT CGAITTAAGC TATATTTATA AAAAAATGCG CCTACTCATA ACATTCTTTG 180
 GCTATTTAAC TTTAATAAGC TAGGCGCAAG TTGTCATAA GATAAGCGCA C 231

5 (2) INFORMATION FOR SEQ ID NO: 2581:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 60 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

10

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2581:

15 ACTTCGTAAA ATTATCTTG AGTGGTGTGTT TCTATATTAA GATTCATTTC ATTACACTCC 60

(2) INFORMATION FOR SEQ ID NO: 2582:

20 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 284 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

25

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2582:

30 GTCAAATGCT GAGTTCTAAT AATGATGTTG GCCACCATGC ATACAAAAAT GCTAAAAGAG 60
 AATTACGCAA GATTTTAGAT AGCTATCTCG AAAATGGTAA ATTAAAAATAT TACGATATTA 120
 TCGTTACAAG CAATTTAGCT ACTAAACATC CGTTTTTCGA GTATGCACGT TCATTTGATT 180
 35 TTATCATTGT TTCAGATATC GGTTTAATAA ACGTTGATGT AAAAAGCTGG GGTGAAAAAA 240
 CATTTTATCA CTTTGATGTA CTTGATGAGC ATGATACAGA nAnA 284

(2) INFORMATION FOR SEQ ID NO: 2583:

40 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 56 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

45

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2583:

50 GAGTCAGTCG AAGTTTGTG TCGACCCGT AGAAGTGTA AAGCGCATG TGAATG 56

(2) INFORMATION FOR SEQ ID NO: 2584:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 67 base pairs

55

(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

5

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2584:

TCGACTAATG TAATGTAGGC ATTGGACGTC AAATGTAATG TGGGGCAATC CGACGAGATG 60
ATGGTGC 67

10

(2) INFORMATION FOR SEQ ID NO: 2585:

(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 52 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

15

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(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2585:

CGTAACGCGC CTTGTCCGG GCCCTCCAAG CCTTTAAGG GGACCCCCG GA 52

25

(2) INFORMATION FOR SEQ ID NO: 2586:

(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 238 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

30

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2586:

ATTAGCAACA ATGTCAGATA ATCGATACCA ACTAATTAGG CGAGAAGCGG TTTCTCATGG 60
TCTTAGTGGC CTAGAAATTG ATGTATTGA TTTGCATTCA AATAAGTCTA GACATATTAG 120
CTCGTTATCA GGTGGAGAAA CTTTCCAATC GTCGCTTGCA nTAGCTTTAG GGTAAAGCGA 180
AATTGTACAG CAGCAATCAG GAGGTATTTC ACTAAATCA ATATTATTG ATGAAGGA 238

40

(2) INFORMATION FOR SEQ ID NO: 2587:

(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 50 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

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(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2587:

ACTGGAAAAA ACCGCnAACA CGACATTGTC AAAACGACGG CCAGTGCCAA 50

55

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 102 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2588:

GnGCAATTAT ACCACTATAT TTATTTCTTA TACTCCATTT GATTATAGT TGTATTAATA 60
 CATTGACTCA AAACTAATT AATCAAATAT GTTTTTAGA TT 102

(2) INFORMATION FOR SEQ ID NO: 2589:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 50 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2589:

GCATAATATC GGATATGCGn GTGTGTCAGT CnCATAGTCG nTGGATTGCG 50

(2) INFORMATION FOR SEQ ID NO: 2590:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 50 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2590:

TTAnAAATTG CCTnTCCAAT TnTAAGAATC CTTTTCCAA GGTAAAAAAA 50

(2) INFORMATION FOR SEQ ID NO: 2591:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 200 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2591:

CTTCATCCCT TACTTTTAAAT TGTCACGTCA AATAATATTT GTCTTTAACT AGTAATAACT 60
 CCAAATATAT TTAGTTTGTG TGCTAGCTA TAAACACAAA TGAntCATAA CACTATATT 120

	TGATTTTAA TTATTTATAT	200
	(2) INFORMATION FOR SEQ ID NO: 2592:	
5	(i) SEQUENCE CHARACTERISTICS:	
	(A) LENGTH: 74 base pairs	
	(B) TYPE: nucleic acid	
	(C) STRANDEDNESS: double	
10	(D) TOPOLOGY: linear	
	(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2592:	
15	TGCATTAATC ATCTTGGATA CTCTTTCTAC CAAAGTAATG ATTGCACTAC CATGACGACG	60
	ACCAGCAATA GTAT	74
	(2) INFORMATION FOR SEQ ID NO: 2593:	
20	(i) SEQUENCE CHARACTERISTICS:	
	(A) LENGTH: 244 base pairs	
	(B) TYPE: nucleic acid	
	(C) STRANDEDNESS: double	
25	(D) TOPOLOGY: linear	
	(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2593:	
30	CACCTGCTCA CCTCTATTTT CAAACAATTA TGATTGAATT GAATCATTCT AATTTTTGTA	60
	AAGTTACTTG TTTAATTTAT TATATTTATT AACTCTATGA TAACAAAAAT ACTGTTTGTG	120
	TATAACAATA AATTGAGATA CTCAATAATT TGATAATGTG AAATTGATAC TTTTAAAAAT	180
35	AGTTGAATAT GACAATTAAT GATTAGTTTT GCAATGGTGC TATAACAAT ATTTAGCAGT	240
	TATC	244
	(2) INFORMATION FOR SEQ ID NO: 2594:	
40	(i) SEQUENCE CHARACTERISTICS:	
	(A) LENGTH: 201 base pairs	
	(B) TYPE: nucleic acid	
	(C) STRANDEDNESS: double	
45	(D) TOPOLOGY: linear	
	(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2594:	
50	ATATGGTATG GAACTAACGG AAGAAGGCTT AGCATACGTT AAATATGCTA AAGTGATTTT	60
	AGATACTAAT AGCGAATACG AGAGAGAAAT AAAAGGACTT TACAATAAGA AGGTAATAAT	120
	AAGTATTAACT ATGCAAGAAAT GTCAGTATTT GTATCGCTAC TATAATAAGA TTAGTGAATG	180
55		

(2) INFORMATION FOR SEQ ID NO: 2595:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 156 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

10

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2595:

AAAAAGTATT AAAAATTGCA ATTCTTAAAC TGTATTTCAT ATTAATATTT CTAGCAAATA 60
 ACATTGTAAA ATAAAGAAAA ATAATTanAG TAITGCACCTT TATTGAAATT TATATTACGA 120
 TAGTAATGCA GAAATTTATA TATGCAAAAT ATTATA 156

(2) INFORMATION FOR SEQ ID NO: 2596:

20

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 62 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

25

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2596:

TGATCCGCAA ATCGCTGAAC ACGTTCTTCT ATTGGAATCC CTCATTAC TTTTAGCTAG 60
 AC 62

(2) INFORMATION FOR SEQ ID NO: 2597:

35

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 140 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

40

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2597:

TTACCTTTAG nTTTTAAAC CTGACCTCC AACCAGCCTA ATTGGTTAAA TGGGGATCCA 60
 TTTATATAAT CCCAGGCCTA ACCTTCCAAG GACCAACCTA AGGGATTAAT CCCCCCAATG 120
 GCCAAAGTGG GATGGGTAAT 140

50

(2) INFORMATION FOR SEQ ID NO: 2598:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 112 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double

55

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2598:

ATTAAATTGGG GAGTTAAATT AAAAAAAAAAGG GGTTCTCTCC AACCGGAnCC ATTCCCATTT 60

5 TGGATTAAAA ATTCOCGCCT TTGAAAAAAT TGTTTGCCGA ACCGCCCTTA AG 112

(2) INFORMATION FOR SEQ ID NO: 2599:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 63 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: double

(D) TOPOLOGY: linear

15

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2599:

ATACCGCCCC CAGTTCAATA AGAAGCCCTG GATCAGACCT GACCCTGGTA TGGGGGGAAT 60

20 CCC 63

(2) INFORMATION FOR SEQ ID NO: 2600:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 53 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: double

(D) TOPOLOGY: linear

25

30

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2600:

ATACTATGGA ATGCCTTAAT GGTGGATAAT TTCACCAAT TAATTTTAAA AAC 53

35

(2) INFORMATION FOR SEQ ID NO: 2601:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 73 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: double

(D) TOPOLOGY: linear

40

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2601:

45 AACTAAAGGT TCTAAAGATA CAGTAAAAAT TGAAAAATAC TATAAAATGC GTGGCGAGAA 60

AAAAGATGGT AGT 73

(2) INFORMATION FOR SEQ ID NO: 2602:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 108 base pairs

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(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

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(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2602:

CGGTTGCCAG CCAAAACTTG GCAnCCAAGG CAATTATAGC AAGGCACCCA CCTAAATTTG 60

10

CGGACCACCC GGAATGCGGC CACCAAAGTT GGTGGGAGGC CATTTTAA 108

(2) INFORMATION FOR SEQ ID NO: 2603:

(i) SEQUENCE CHARACTERISTICS:

15

(A) LENGTH: 59 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

20

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2603:

AAGCTTATAA CTATTGTGT TTGTGATCGA GATAGGTTTG CCTGTAAAAA TGGCCATCA 59

25

(2) INFORMATION FOR SEQ ID NO: 2604:

(i) SEQUENCE CHARACTERISTICS:

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(A) LENGTH: 50 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2604:

35

ACGTCCAAAG GGCCGTTTCG CCCAGAnGTG CTGGCAAGGT TCCACAACGn 50

(2) INFORMATION FOR SEQ ID NO: 2605:

(i) SEQUENCE CHARACTERISTICS:

40

(A) LENGTH: 107 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

45

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2605:

GTCCAATGTC ACATTAAATG ATTGGTATAA GCGATCACAA GGnCATAGTG AATATTTTGC 60

50

ACCAGACGCT GTACATTAG AGTACAAAGG AGTCCTAGCT TTAAAAG 107

(2) INFORMATION FOR SEQ ID NO: 2606:

(i) SEQUENCE CHARACTERISTICS:

55

(A) LENGTH: 54 base pairs

(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

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(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2606:

GTTTAAAGCA ATTGGAAGG ACATTGGTTA AAGGATGGGA GTGGCAAAAT CTGG 54

10

(2) INFORMATION FOR SEQ ID NO: 2607:

(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 366 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

15

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2607:

20

GTTTTAGCTG AAGTTAATGA TGAAGATATC GGAGCTATGG TAATTAAACT AGTTAAACTT 60

ATTTCATGCG TTGATTATGT TTTATTTTCAT TCAATTCAAA AAAGCTATAC AACACATATG 120

25

AATGAGCTTA AAAATTGTTT CGATTACATA GCTGAATTAG ATAATCATTAT TGCATTAGCA 180

ATGTATCGTA GAACGCTAGA ATGTTATACT GAACCACAAA TTGATGATTC AAATGATGGC 240

ATAGTATTCT CTGAGTTAAC ACATCCACTC ATAGCAGATG GCAGTAGCCA ATGATTTCnC 300

30

ACTATCACAn AATATACTGT TAACTGGGGT CGAATGCTTC GGGnTAAATC AACATTTTAT 360

GGAAAT 366

(2) INFORMATION FOR SEQ ID NO: 2608:

35

(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 142 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

40

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2608:

45

TTCCTAGACG TCAGGTGGCA CTTTTCGGGG AAATGTGCGC GGAACCCCTA TTTGTTTATT 60

TTTCTAAATA CATTCAAATA TGTATCCGCT CATGAGACAA TAACCTCTGA TAAATGCTTC 120

AATAATATTn GAAAAAGGAA GA 142

50

(2) INFORMATION FOR SEQ ID NO: 2609:

(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 50 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double

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(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2609:

GGGTCGTCAA TTGAⁿGGCAG GTAGAGCATT AAGTCAGAAT TGTAATAAAT 50

(2) INFORMATION FOR SEQ ID NO: 2610:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 51 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: double

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2610:

ATTGGGTGAT GAATTTGAC GGTATTGTCA AGTCCAGTGG CTAAC^tTCGG G 51

(2) INFORMATION FOR SEQ ID NO: 2611:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 93 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: double

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2611:

ACAAACTTCG GACTGCCAAT TACATTACC TTGGGGGGTC AGAAACAATG GGTGCATAAA 60

GGCCCCGTGT TCGAAACGGG AAAAAGCCCA GCA 93

(2) INFORMATION FOR SEQ ID NO: 2612:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 58 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: double

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2612:

ATGATGTTTT TCGGCTAATT TTATACTGA ATTTAGTTTA ATTA^aCTTAT GATATTTT 58

(2) INFORMATION FOR SEQ ID NO: 2613:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 102 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: double

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2613:

TTCTCACCAT TAACTATGCA TACTCACTTT ACACATAAAT TTGCTTAACA TGCAGAACGG 60

5 AAATAAATCA TTACACATA TAGATCCCAT CATATTTTA nA 102

(2) INFORMATION FOR SEQ ID NO: 2614:

(i) SEQUENCE CHARACTERISTICS:

10 (A) LENGTH: 62 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: double

(D) TOPOLOGY: linear

15

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2614:

TGAACTACAA GACGCTTATA TCATTGAGCG ACATTCTCG CAGTGAAAGA AACACTTGCG 60

20 TA 62

(2) INFORMATION FOR SEQ ID NO: 2615:

(i) SEQUENCE CHARACTERISTICS:

25 (A) LENGTH: 120 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: double

(D) TOPOLOGY: linear

30

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2615:

TGGAGCATTT CACATACATT GGCAACCTCA TGGAGCTTAT CATTCTACCT TGGGGnACAG 60

35 ATATAACAAC ACTAAGCAA CATGGATGGT GTCGTTGATA ACTTTCATC TATAGAATTA 120

(2) INFORMATION FOR SEQ ID NO: 2616:

(i) SEQUENCE CHARACTERISTICS:

40 (A) LENGTH: 53 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: double

(D) TOPOLOGY: linear

45

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2616:

CTGTAGTAAA TTGCCGAAT CGGTATCAAT ACCAGTCTGT GACTGCGTTG GCC 53

50

(2) INFORMATION FOR SEQ ID NO: 2617:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 128 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: double

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(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2617:

ACATATGATA TGAGTATAIT AACGTTTAAA TTATGGATAC TCTAAAGACA GGCGATTTTG 60
 AnAAATCAGC AAAAAGTTAT ATGATGTAAG TGGGACAGAC ATACTAGATG TAACACATTA 120
 ACCAAGTG 128

(2) INFORMATION FOR SEQ ID NO: 2618:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 59 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2618:

CCTAACCGTG TGTGTATGTA TACCTACAAA AAAATTACA TTGTGACACT GCGTACGTG 59

(2) INFORMATION FOR SEQ ID NO: 2619:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 54 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2619:

GCCCATGGTC AATCAGACAC ACGGATTGAA CGTTAACAAT TTATGACTTT AACA 54

(2) INFORMATION FOR SEQ ID NO: 2620:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 53 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2620:

ATCATTTGCA CATGTAGTAG CCGTAAATG GTCAGACGAT CAATGCGAAC TGA 53

(2) INFORMATION FOR SEQ ID NO: 2621:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 53 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2621:
CTAAGTGTGG CCGAATAAC CGTCAATCCA CGGAGCACAT AGGATCTCCC ATG 53

5 (2) INFORMATION FOR SEQ ID NO: 2622:

(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 59 base pairs
(B) TYPE: nucleic acid
10 (C) STRANDEDNESS: double
(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2622:
15 TGGGACCGAT AATCATTCGC ATGAACACCT TCCACCGTCT CTACTCACT ACCTACGGC 59

(2) INFORMATION FOR SEQ ID NO: 2623:

(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 64 base pairs
(B) TYPE: nucleic acid
20 (C) STRANDEDNESS: double
(D) TOPOLOGY: linear

25 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2623:
ATTAAATTGT TAATTCGTCA TTAGTGACA ACTTGATGT AGATATTTTA ACATATTTTA 60
30 TGCT 64

(2) INFORMATION FOR SEQ ID NO: 2624:

(i) SEQUENCE CHARACTERISTICS:
35 (A) LENGTH: 55 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

40 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2624:
CCGTCCCAGA ATATCATATG ACAAATGTTA AGAGACTTGA ATGATCATAC ACGTG 55

45 (2) INFORMATION FOR SEQ ID NO: 2625:

(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 66 base pairs
(B) TYPE: nucleic acid
50 (C) STRANDEDNESS: double
(D) TOPOLOGY: linear

55

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2625:

GTGGTCACCA GGTACGGGGG ATACAGGGGG TTAATCCCAC CTTGGATAAG TGGAAAACGG 60

5 ATTTCC 66

(2) INFORMATION FOR SEQ ID NO: 2626:

(i) SEQUENCE CHARACTERISTICS:

10 (A) LENGTH: 62 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

15 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2626:

CCACCAATGG GTGGGGGATG GAATAACCCT TAATGCGGTG GTACCCGGGT AATGGTAGCC 60

20 CC 62

(2) INFORMATION FOR SEQ ID NO: 2627:

(i) SEQUENCE CHARACTERISTICS:

25 (A) LENGTH: 54 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

30 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2627:

CATGTTTTTT CATTCCTTGA TGACGACACT AGAGGTTCCC GTGTTCAATTA TTAA 54

(2) INFORMATION FOR SEQ ID NO: 2628:

(i) SEQUENCE CHARACTERISTICS:

35 (A) LENGTH: 56 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

40 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2628:

45 TTGGCCAATG GCGGATACAC CCTCTCAATT CGATACATAA CTCAAGGCTC AGTCAT 56

(2) INFORMATION FOR SEQ ID NO: 2629:

(i) SEQUENCE CHARACTERISTICS:

50 (A) LENGTH: 50 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

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(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2629:

TGTCGCTAGG TAACCGTGCA TCGTTCACAG GTACnTATGA TTTCACnGA 50

(2) INFORMATION FOR SEQ ID NO: 2630:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 50 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: double
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2630:

GAAGGnCCCA AACCAGGCGT TAAAGGCCGA TTGGGTTTAA ACCAAAGGTT 50

(2) INFORMATION FOR SEQ ID NO: 2631:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 65 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: double
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2631:

CGCGAGTGTA TCCGTGCGATA TGTCGAGAGG AAAGATTGAA GTGTGGAAGA GTGTTGAGTA 60

ACCCT 65

(2) INFORMATION FOR SEQ ID NO: 2632:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 53 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: double
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2632:

TGAAAGAACT TTAGCTAGAC GTTCGTAAAG GTCTTTTGAC ATAAAGCTAG AGA 53

(2) INFORMATION FOR SEQ ID NO: 2633:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 53 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: double
- (D) TOPOLOGY: linear

AAAAGCCAAA AGGAATTAAT TAACCCCGGG GTTAAATTTC TAATGGGAAT TTG 53

(2) INFORMATION FOR SEQ ID NO: 2634:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 68 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: double

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2634:

GGTGTTCACA TTCTGAAGGT TTAGAGAGTT AAGATTATAT ATATATAAGT TTTGGGGTGA 60

TAGATATG 68

(2) INFORMATION FOR SEQ ID NO: 2635:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 80 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: double

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2635:

CCAATTTTAC TTGGTGCTGC CATTTCGGTC TCTCGTGAC TTGTGATTGA GGTGCCATTG 60

TTCCCGTAGA TGGTTCACAT 80

(2) INFORMATION FOR SEQ ID NO: 2636:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 144 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: double

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2636:

CTTACACCCA ACTTATTGAC TTATAATCTA TTAAAGTGCC ATTTTACAAT CTGAATCCCT 60

TAATATAGCA ATAATTACAA CTTCGGACAA ATGACTTGTT TTATGTGCGT GATTTCATCA 120

TGAACATCGT AATGCGACnT AATA 144

(2) INFORMATION FOR SEQ ID NO: 2637:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 104 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: double

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2637:

5 TAATTCGGCA ACTAATATCA AGATCATGAT CAAATACTAC TGCCATTITC TTATACCTCT 60
 TAATGTGAAA TCACTGnCAA CACATAACAT CTTAAAACTT TGAC 104

(2) INFORMATION FOR SEQ ID NO: 2638:

10 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 151 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 15 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2638:

20 CATTTCATCCG TTTTTTGGT TCATGTACAT ACCATTGTTT TGTACACAGC GAAGTCAGTT 60
 AACCTTATAT CTTGTATATA CAGTGTAAAT CGGCAATATT AAACAGTACT TTCCCAATTG 120
 CTTTCTTCCT CAATTGTGCG ACGGACTGTA n 151

25 (2) INFORMATION FOR SEQ ID NO: 2639:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 51 base pairs
 (B) TYPE: nucleic acid
 30 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2639:

35 AAGATCAACT GAAATTCATG TGTGGCCTT TATTAAGATC ACATGGAAAT A 51

(2) INFORMATION FOR SEQ ID NO: 2640:

40 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 52 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

45 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2640:

TTAGCTAGTT GGTAGGACGG CTACCAGGCA CGTCATAGCG CTTGGAGGGG TC 52

50 (2) INFORMATION FOR SEQ ID NO: 2641:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 53 base pairs

55

(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

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(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2641:

CAGGCTTAAA CCTGAGTTAG TGCCATTCAT AATTGCAATC CCAAGCGACG GAA

53

10

(2) INFORMATION FOR SEQ ID NO: 2642:

(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 345 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

15

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2642:

20

ATGTTTGTCa TCTGGAGCna TAGAACAGGG TTCATCATGA GTCATCAACT TACCTTCGCC

60

GACAGTGAAT TCAGCAGTAA GCGCCGTGAG ACCAGAAAAG AGATTTTCTT GTCCCGCATG

120

GAGCAGATTG TGCCATGGCA AAACATGGTG GAAGTCATCG AGCCGTTTTA CCCCAGGGCT

180

25

GGTAATGGCC GCGCACCCTTA TCCGCTGGAA ACCATGnCTA CGCATTCACT GCATGCGACA

240

TTGGTACAAC CTGAGCGATG GCGCGATGGA AGATGCTCTG TAGGAAATCG CCTCCATGCG

300

30

TCTGTTTGCC CGGTTATCCC TGGATAAGCG CCTTGCCGn CCGCA

345

(2) INFORMATION FOR SEQ ID NO: 2643:

(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 75 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

35

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2643:

40

CTTATACGGA TGTATAGGTC GGTCCAAACA TTTGATTTTA GTGAGAGCA GCCTTTCACA

60

AATTATGTTT AATGT

75

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(2) INFORMATION FOR SEQ ID NO: 2644:

(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 57 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

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TACCGGTAA TTAACCAAGG CCCCAGTAAA AAAATCCCCG GTATTCCTCA TTCCAAC 57

(2) INFORMATION FOR SEQ ID NO: 2645:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 66 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2645:

AAAGCAATTC GCCGATAAG AGTAGAGACG AATTGCTTTT AAGGTTAAAA CAAAGTGAGT 60
 TCAATT 66

(2) INFORMATION FOR SEQ ID NO: 2646:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 63 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2646:

CAGTATAACT TGTGACCTAT TTAGAGGGGC ACGTTGGTA CAATGAGTCT GAAACCGTAT 60
 CAA 63

(2) INFORMATION FOR SEQ ID NO: 2647:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 208 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2647:

TAGAACATGG ACCGGTATTT TACATCCTGT ACGCCTAATC TGTGTGAAGT ATCTTTAGTG 60
 AACCGTGTCT CTGGAATAAC CGCGATTCTG GGCAACAGT GTGTAAACCG ACTTATGGG 120
 GATGTGTGAG TAATCATTGT GNACTGTTGA TTCTGTTCTG GAATCCCATC TCACAACAGG 180
 ATCTTGGAAG TGCTGTCATT TTAGATGC 208

(2) INFORMATION FOR SEQ ID NO: 2648:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 150 base pairs

(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

5

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2648:

TTTTAACCTA AAGAATACTA ACACTAAAAG AGAATGATTC TGIACCGCTT TCCTTTTTCA 60
CTCAATAACT TTATATTTAG TTATCCTTAT AATTGTAAAT TAIGTTAGTT GGTAAThTT 120
TACATATATG TATTTGATAT GCTTGTAAT 150

(2) INFORMATION FOR SEQ ID NO: 2649:

15

(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 138 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

20

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2649:

AGTTTAACTG ACATCGAGTG GTACACAATA GCAATGGTTG TGTGTAAAGT CCTGSTGACA 60
ACATATGAGA GTAAACATTG TAGTGATTAT CTTGTACTGA GAGAATTGAC ATCTATGhAG 120
TTTATCACGT GCAAATAT 138

30

(2) INFORMATION FOR SEQ ID NO: 2650:

35

(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 52 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2650:

TCACAATTGC AAACITCTGG CACGCACTCA TCTGCGATTT CACAAGCTAC AT 52

(2) INFORMATION FOR SEQ ID NO: 2651:

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(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 65 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

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(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2651:

GAGTCAAATT AAAATGCCTA TTGGCCATTG TGATGTATAA TCACTTAGTT CACATATACT 60

55

(2) INFORMATION FOR SEQ ID NO: 2652:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 67 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2652:

GGGCGGTAAT TGTACCATC ACAAAATGCT ACGTTGAAAC ATCGAGGATT CAAGCTGGAC 60
 AGCAGAG 67

(2) INFORMATION FOR SEQ ID NO: 2653:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 52 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2653:

ACACATCTTA TATGTCTTAC TGATTAAAGG AAAGAATCAG TGGATCAAAC TG 52

(2) INFORMATION FOR SEQ ID NO: 2654:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 261 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2654:

CAAGCTGTAA ACCAAGAATT CCAGCATTAA ATATCTCTCn TGGTATCGGT TGAGATAAAT 60
 ATTCCTGTG CTCATTAATAT GTAGTAATCT TTAITGTAGT TCCTCAACCT ATGACACGAA 120
 TATTGCACAA TATTAGTATA GACAAATATT TCCITTATAA TCCTCATCAA TTTTCTCCTT 180
 TAATTATGTA TCATACATTG TATATTCTCA TATAGACGTT TTGnCATATT CATAGCTTCA 240
 ATATTAGTGC ATTTATGTAT T 261

(2) INFORMATION FOR SEQ ID NO: 2655:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 60 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2655:

5 AATCCTATTA GCATTATAA TGATCATGAA AAGATGTCAT CGAGAATCAC CTAGTACAG 60

(2) INFORMATION FOR SEQ ID NO: 2656:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 75 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: double

(D) TOPOLOGY: linear

15 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2656:

CGCCGAAAAC AATAAATTCT CGGAACATAG AATTTATCAC ATACCACGCT TGGATTATCA 60

CAATGGACTG AGTCG 75

(2) INFORMATION FOR SEQ ID NO: 2657:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 202 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: double

(D) TOPOLOGY: linear

25 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2657:

30 TATTAATAT GCGTTGTCAT ATATCTACGG CATGATTTAA CCGTGAACCA TGAATCATT 60

TAATCGGCA CGCGTAAAAAT GTCATTGAT CCGCAATAC CACTATATAT CTAATAGCAA 120

35 GCGTCCAGGA TTCTGTGTTT TATAAATTTA AACTAACTGA AACGTGTGTA TCAGTTCACT 180

CCGnTCGATT ACCACACTTC AA 202

(2) INFORMATION FOR SEQ ID NO: 2658:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 60 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: double

(D) TOPOLOGY: linear

45 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2658:

50 CGTCATGTG CATCATGTAT CTACGTCAAT AAGATGATGG GGTCAACATGA TTGGACCATT 60

(2) INFORMATION FOR SEQ ID NO: 2659:

55

(A) LENGTH: 207 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

5

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2659:

CTAATCATGT CATGCTACA ATTATTGGA GTATTGCTGA CGAAATGCGT TGTACAACTT 60
 TTTCATTCTA GCACCTTGCG GGGGCCACACA AAnGAATTGG TCCATTCTCA nCATCAGTGG 120
 GGGGGCGGAA TAATTTCGAA ATTATTCTGC CACTCCCACT TCATCGATTA AGTTGTAACT 180
 CTACATTACA TTTGTCTTAA ACCATTG 207

(2) INFORMATION FOR SEQ ID NO: 2660:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 54 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

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(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2660:

TTAATTATGT ATAATACTTA ACAAGATCAC CTGATAGATG TCTAAATATT ATCT 54

30

(2) INFORMATION FOR SEQ ID NO: 2661:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 130 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

35

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2661:

40

ATTAAAAAAA AATGGGGTAA TTTCGCGCAA ATCCCGTTTC CCCCTTGCCA AGGCCAAATT 60
 TAACCACCCT TGCCAAATnA TTAAGCCAAA TTITTCGATA TTGTITTCG TAATGITTCT 120
 TTAATTAATA 130

45

(2) INFORMATION FOR SEQ ID NO: 2662:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 104 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

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AAAGTAAAC CAGTCTATTC AAAAAGGTGA AAAATGGTGA CGCAGCGTAA ATAATGGTC 60
 TCTGGTAGGG TAAATCGCGT TGTGGGTTTG TCACATCAGG AACT 104

(2) INFORMATION FOR SEQ ID NO: 2663:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 115 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2663:

AAAAGAATA AAAGGACTCG AAAAAGTCAA AACTTATTtT AGATAGTCAT CGTGACAAGA 60
 AACAAACATT TAACTAGACT AAGAAAAATG CTTGGAATAA AAGGCAGACT CATCA 115

(2) INFORMATION FOR SEQ ID NO: 2664:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 164 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2664:

GCATGCGCCA CGGTGTCTCA GCAGAGTGAC TGCCACCTTG TGTGCGCAGA GTCTGCGCCT 60
 AGTACAGTCA GGGTGAAACA CnCTATACGC ATTAGGTACA GTACTTCCTG TCTCCGACTT 120
 GAGTAGAACG TGACATATCT ATCAGCATTC ACTCGAAAAA GGGA 164

(2) INFORMATION FOR SEQ ID NO: 2665:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 50 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2665:

AATTACGCAA TnTCCCTGTC TTAnTGAAAG GAAITGACCT GTTAATTCGT 50

(2) INFORMATION FOR SEQ ID NO: 2666:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 64 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2666:

5 ACAATTCAAT AGAATTTACC CGTAACAGCG TTGCACTGCA CTCGAAGACGG CTGACGTATA 60
GCAC 64

(2) INFORMATION FOR SEQ ID NO: 2667:

10 (i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 56 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

15

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2667:

20 GTAGAACCAG CGACGGCGCG GGGCTGAGC AACATCTGAC TACCTATCGG CCGCGC 56

(2) INFORMATION FOR SEQ ID NO: 2668:

(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 59 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

25

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2668:

30 GGATCGATTG ACTACATGAC GTGGnGACGC AATTATACGG ATAGTCCACT 50

(2) INFORMATION FOR SEQ ID NO: 2669:

35 (i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 58 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

40

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2669:

45 GCAAGATCGA ATTACAATCA CGACGATCAA CGCAGTAAT CATCTCTGAT CACAGTAA 58

(2) INFORMATION FOR SEQ ID NO: 2670:

(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 124 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

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(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2670:

ATACCAGCCA GACTTCGATC AACAGTGTTC AACTGCATTG CCCAGTAAGT TGGATAGCTC 60
 GCACATAGTG CTACAAGTTA ACATATACAN CGAGTTTGTA TCTCAAGCTT GAAGCTTGAC 120
 TACC 124

(2) INFORMATION FOR SEQ ID NO: 2671:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 54 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: double
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2671:

CGCTTACTGC ATAAAGCCC CTAACACCGG GGCACACGC TCGTTGCCG GCTT 54

(2) INFORMATION FOR SEQ ID NO: 2672:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 51 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: double
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2672:

TCAGCGATTT AACACTAATT CTCTAGCTA TTCTCTGTAT TTGGACGAG A 51

(2) INFORMATION FOR SEQ ID NO: 2673:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 57 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: double
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2673:

GATAAGTTGT ACCATATTC GATGCAATTC AATGGACAAT GAGGTCACCT GGCTTGT 57

(2) INFORMATION FOR SEQ ID NO: 2674:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 75 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: double
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2674:

TCCTTTGGCC AATTTTCCA AGTTTAAACC CAAACGGCCC GGGTTGGGTC CCCAATTCCA 60
ATCCAAAATA ATTTTA 76

(2) INFORMATION FOR SEQ ID NO: 2675:

(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 56 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2675:

TCCGGGAACC TTACCCAGTG GCCCTACCTT ATGGGTAAAC CCAACCAGTG GGGCCA 56

(2) INFORMATION FOR SEQ ID NO: 2676:

(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 67 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2676:

TGCGGGGTCT CGTGCCGCCG TCTGCGGTGG TTGTTGTCC GGTGGTGTGT CGGAGTCTTT 60
GCCAGCT 67

(2) INFORMATION FOR SEQ ID NO: 2677:

(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 55 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2677:

GGACAGAGGC CTTGACCCCC CCACAATCCT GATTCACCGT AAGTTGCTCT CCCCC 55

(2) INFORMATION FOR SEQ ID NO: 2678:

(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 65 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2678:

AAATTGGGGC TTCCATCCCC ATTCCAAATT ATTAAAACCG TTTAGGGGCC TTATTGGCAC 60
 5 CATGG 65

(2) INFORMATION FOR SEQ ID NO: 2679:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 176 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2679:

ATTTTGGGAT TAAACCCCTTA ATTAATAATTG GCGGGGAAAA GGAAAAGGCC GGTGGGAAA 60
 20 AGGCCAAGGA AAGACCTTG GGAACATTA AAAACCTTG GCCAAGGCCT TCCAAAAACC 120
 GGTGGTTT TATTTTGGA ACCAAATTGG GGGCCGGGA TTGGGCCAAA ACCTTG 176

(2) INFORMATION FOR SEQ ID NO: 2680:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 50 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2680:

GCCCCAAGA ATTCAAATAA CcTTCCGAC CCGTAATGG CCACHTAATT 50
 35

(2) INFORMATION FOR SEQ ID NO: 2681:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 63 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2681:

TGTGCATTTA TTGCATAACC TATATATGTG TGACCGATAT TTAGTCCGCA CTTCATGGT 60
 50 GCG 63

(2) INFORMATION FOR SEQ ID NO: 2682:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 62 base pairs

(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

5

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2682:

TTATCCAAGC TTCGGATAG TTCAAGAGA AACCAATGAA ATCCGTTATG GGACCAATGG 60

10

GT 62

(2) INFORMATION FOR SEQ ID NO: 2683:

(i) SEQUENCE CHARACTERISTICS:

15

(A) LENGTH: 70 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

20

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2683:

AACAGCATTG AAGTGAGTTA CTGGGGTTTA TGCACCATCA TTGGATATCT GCACAAGGAA 60

25

TTTCAACGTG 70

(2) INFORMATION FOR SEQ ID NO: 2684:

(i) SEQUENCE CHARACTERISTICS:

30

(A) LENGTH: 68 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

35

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2684:

CTTAAAAATC CCAGATTCC TTCCTTTTAA ACCCGATGGA ATTATCCCGG CCAAAAAATGG 60

40

ACCATTAT 68

(2) INFORMATION FOR SEQ ID NO: 2685:

(i) SEQUENCE CHARACTERISTICS:

45

(A) LENGTH: 58 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

50

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2685:

TTTAAACAAA ACACCTAGAT ATGTTGCTG ATCAGAGATG CTTGGTGACC GGTGATCC 58

(2) INFORMATION FOR SEQ ID NO: 2686:

55

(A) LENGTH: 87 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

5

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2686:

10 ATCCATCCTT ATAGGCATTC ATCCTTTAAC ACCAACGATT TACATTATGG ATATAACGAC 60
 TTGAGGGGGA ACGTGGGGTC CATCCTA 87

(2) INFORMATION FOR SEQ ID NO: 2687:

15

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 50 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

20

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2687:

25 ATGGCTGGGC GCTTTACGTG GCCACATTAG GATTATGGCA CTGAAGCGTA 50

(2) INFORMATION FOR SEQ ID NO: 2688:

30

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 50 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

35

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2688:

AACGGTCGTA GGCAAGGGAC TCCCCCnGG nGCTAnATGA ACTGGTCGTA 50

(2) INFORMATION FOR SEQ ID NO: 2689:

40

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 60 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

45

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2689:

50 GCTAGCATCC ATGGCTCCTA TGCCGAAGCT GAGTAGACTT AGGTGACGGG TGCCTGACAA 60

(2) INFORMATION FOR SEQ ID NO: 2690:

55

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 146 base pairs

(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

5

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2690:

ACTTAAAAA GGAAGATTAG AAAATTTCATA AAAAAATTTT GCTGGGGATT CTTGATCCCA 60
TGGGCCCATn TCTGGATTTA GGTATTGGG TTGGCCAGCC AGGTTAGCGG GGCCCCCATT 120
CTCCAGGCT CGGTTTCTCC CAGGAC 146

(2) INFORMATION FOR SEQ ID NO: 2691:

15

(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 53 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

20

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2691:

ATTGGTGTCT AGATCATTTA ATACTAAACA TACAACACGA CTAATTCAT TCA 53

25

(2) INFORMATION FOR SEQ ID NO: 2692:

(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 113 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

30

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2692:

TATTGAATTC AAACATGTGA CTATTTCCCTA AATAATACAA TAAAAACGAC TACCATACTG 60
GCCAGAAATA TATTTTATT GTTACACATT AATTTCAnTC CTCATAATT TGC 113

40

(2) INFORMATION FOR SEQ ID NO: 2693:

(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 54 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

45

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2693:

GACTTATGTC CGTGTCCGC TGAAGGCACG TCACGTAAAC TACCCGGTAC AGCT 54

50

(2) INFORMATION FOR SEQ ID NO: 2694:

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(A) LENGTH: 204 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

5

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2694:

10 CTTCAGCATG AAGAAGTCGC GTGATATACA TCATATCGAT ATATACCGAT TATATCATCA 60
 GAACATTCCTC CTGGTATCAT TAGATAGATG ATAATTGAC ACAGTCCACA ATTTGTnACA 120
 ACGCCGAGAC TCAATGGCAT CCTGTACnTG ATCTATGCCG GAAACACTA GTCTATATGC 180
 15 CCGCAGACGT CCACTATATG CATC 204

(2) INFORMATION FOR SEQ ID NO: 2695:

(i) SEQUENCE CHARACTERISTICS:

20 (A) LENGTH: 112 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

25

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2695:

ATAACTCTAA TTGAATTAT CTCTCACTAT TAAAACGCGA GCTGTGTAAT AACGAACGCT 60
 30 GACATAATCT TGTATTGTCG CATCATTCGC TGGTATTATC ATATGCGGT TA 112

(2) INFORMATION FOR SEQ ID NO: 2696:

(i) SEQUENCE CHARACTERISTICS:

35 (A) LENGTH: 148 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

40

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2696:

TGGCAAAATT AGATGTCGA ATAGTTTTAT TTACAAGTAC AAACCTTGTA CCATTTTAAAC 60
 GTAAACACAA TTTACTTATT GAAAAGAAAA TAAATGTATT CATGAAnACA CACTTTCCAT 120
 45 AGCACTCATC TATAGTACTC AAATTCAG 148

(2) INFORMATION FOR SEQ ID NO: 2697:

(i) SEQUENCE CHARACTERISTICS:

50 (A) LENGTH: 101 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

55

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2697:

CCTATAATGC TAAACTTCAT ATATCTCTTT GGCAACTATC TCCCTTCTAT TACCAAAGTT 60

ACGATAGCAA TACAATAAAG CAAGCATGTC ATGCTTACTT C 101

(2) INFORMATION FOR SEQ ID NO: 2698:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 131 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: double
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2698:

TTGATAACAT TTGAAAAGCT GCTCCGATAT CAGCAACCAT TTCATCGACC ACAATATACG 60

ACATAGTCAC AAAACTGATT AGAAGACACC AATTGTGAT TATCAAATCA CAAATTTAAG 120

TTGAGATTCA A 131

(2) INFORMATION FOR SEQ ID NO: 2699:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 202 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: double
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2699:

GATAGCGGTT GTTAATCAAA CGATGGTACA TGCTTACATG ATGCGCCATG TTGATAACA 60

GCTCTCTATG ATTACGATGG AAGAATGGTT TATTTTCATCT CAATTATTCC TATTAAATG 120

AACATGCCCT AGCAAAACGA TACAACACAA TCACAACATC ACTTTGAAAT TGTTAAACCT 180

GAGAACCACA TACGCGAAC AC 202

(2) INFORMATION FOR SEQ ID NO: 2700:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 56 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: double
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2700:

TTTGAATTTA ACAAAAGTAT CACGCCATAA AGGTTGTATA TGTGTTTGT AAATTC 56

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 163 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2701:

TATTGCGGGC TTATTAGTAC ACGATCTATA TGATGGTCAA ACTTATGTCT TTCATATTCA 60
 AGTGTGACAT TGTCGGGTGA TTATATTAC GCGTCGTTAT CTACGAACGC CACATTAAGA 120
 TTCGAAACTG ACAATCAACT CATAACGCCA TGGTCCTAGA AAn 163

(2) INFORMATION FOR SEQ ID NO: 2702:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 120 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2702:

TAnACAATCG TAATCGAGTC AATGATGTGA ATTGCCACG TGAGCGCTAA GAATCGGACA 60
 TTCCACACGA TAAGGCAGTG CGCATGCGCA CTGACCTAAT AACACTGAGG ATGAGTACTA 120

(2) INFORMATION FOR SEQ ID NO: 2703:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 103 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2703:

CTGCTTGATT AGGATCGTAT TTATATGAAG ACTGTGTTCC ATAATGATGT GCGTTTITGGC 60
 TGAAGTCCCT TAAATGTACn TGTGTATAAA TGCTATAATT TAG 103

(2) INFORMATION FOR SEQ ID NO: 2704:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 160 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

TCTATAACGC CTCTCATCGT TTGGTCACAT ATTACCATTA TTCATTTTAT GTTCTOGATA 60
 ATTGTATGCG nTGTTCITCA CTGTCATCAC ATTGATACAA CTCATTGTICA CTTTATACGA 120
 5 TTCACACACC TCGATACGAG TGATGATATA TGACAAAGCT 160

(2) INFORMATION FOR SEQ ID NO: 2705:

(i) SEQUENCE CHARACTERISTICS:
 10 (A) LENGTH: 116 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2705:

TTATTGTTTA AGATGGTTAA ATGTCATCAT ATAACanTTA ATTTTITAGCA ATTCGATATG 60
 20 CCTATAACCT ATAAATTTCA CGTCAACAGA AAGTGACAGG CATACGGATG TGTGAA 116

(2) INFORMATION FOR SEQ ID NO: 2706:

(i) SEQUENCE CHARACTERISTICS:
 25 (A) LENGTH: 229 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2706:

TTACACCTGC AGTGTATGGA CTATGGCTAG ATACAATAAT TTAGTCATC AAnCTACATC 60
 ATACAAACTT ACGACTTACA CATATCTGCT TCTAnATCTT CTAAGTATT AAAGCTCGAC 120
 35 ATCGGAAGCT ATTCTAAAT ATTATCATAT ATCTAACTAA CTGACCTAAT ATATACTACC 180
 ATAAATAACC CGCCTCAAGG TTCGCATCG CATATAATGC TTAGAAGTC 229

(2) INFORMATION FOR SEQ ID NO: 2707:

(i) SEQUENCE CHARACTERISTICS:
 40 (A) LENGTH: 122 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 45 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2707:

TCCATATCAA TCCTGAAAGT ACACATATAT CGTACACCAT ATGGTACAAT TTCCTATAnT 60
 ACACATCAGC CATCTTTCAA GACACATGTT AGGCGCTGGT CGGTGTATCT CAGAAATGCA 120

55

(2) INFORMATION FOR SEQ ID NO: 2708:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 233 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

10

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2708:

5 GGAACCTTTTC TGATTAAGTG TTCACACGCC AACATAACA TGTAATTCATG CACACAATTG 60
 TTGCTAAaCT CACTAACCAAC ATACGACCAT TTTACTTTCA ATACATATGA TCCGTATAAC 120
 15 TCGAATTCnC TGCTTATAAA TGACCATTTT GACGTTTACA ATGTTAAACG ATTGGAAATT 180
 TTAAGTTAG CATGTCCACA TCCGAGCAGT AACTATGCCG TACCATTGT ATA 233

20

(2) INFORMATION FOR SEQ ID NO: 2709:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 62 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

25

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2709:

30 TTGTACCTAC CAACGAGGAT ACAATGGATG TCACACGAAA ATTGGGATAT AGATGTCCCA 60
 GT 62

35

(2) INFORMATION FOR SEQ ID NO: 2710:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 104 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

40

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2710:

45 CTTTAAAAAG GATAATGAT TGAGAnAAAA ACCCAATTGA AAATCATGCT GCTCATGCTG 60
 TAGACTTATC GTTTGGACAC TCGCGTAAGA GCGAGCAGTG AAAT 104

50

(2) INFORMATION FOR SEQ ID NO: 2711:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 141 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double

55

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2711:

GTCCAGAATA TTAATCTGAC ACAACCAITTT TAGCnGGTGG ATTAATATATA TACGACCTCA 60
 CCGCAAGAAT CTCTATTITAA CITAACTAT CATGAATAAA CTGCGCCTTG TGATATCATA 120
 TGAAGATTAG CGAAAGATAG C 141

(2) INFORMATION FOR SEQ ID NO: 2712:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 202 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2712:

TGGTATTGAA TAGCAAAATT TTGACTAT TTGCATACTC AATGATACAT CATATCGITA 60
 TATGGATTTT TATGGTCATT AATGGTAAGA ATTGATACG GAATATTGGC AGGTTTGAA 120
 ATCAAATAAT ATGAGAAATT GTATTAACnA TTAGTCAAGT TAACGCTCAT AAATAGACTC 180
 ATCnCGCGCT ATACGCTTA CC 202

(2) INFORMATION FOR SEQ ID NO: 2713:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 56 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2713:

TTGAACTGTC TAAGACTTGG ACGCTAAATG AATGCGTTGA TACAACGGT GAATCC 56

(2) INFORMATION FOR SEQ ID NO: 2714:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 70 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2714:

CATGACCAGC ATCAGGTGCA AACTCCCTCA TTAATCTGGG AAAACTGTAT CCCGGTAGCT 60

(2) INFORMATION FOR SEQ ID NO: 2715:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 124 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2715:

CCTATAACTA CTCAATATTG CAATTACACA TCCTCACTTT TGTCATTGT TTGACAATCH 60
 AATACACGTT ATGCACAACT CCATTTTAAC GGAATGSAGA GCACATATGG ACAGTAAATT 120
 AAAT 124

(2) INFORMATION FOR SEQ ID NO: 2716:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 217 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2716:

GGAATATGTA CTATTATCAT TTGATGTTAT TACTCATATT TTTTGTAATG AATGCTATCA 60
 CCTACAAAAA ATTTACTTGA AACAGTAATA ATAATTAATT ACCACAAACC ATGATAAATT 120
 TAATAACTAA TCTAAAATAT CGCATGTTCA TAGCCACAAG ATATAACGGG TTCCGTAGAT 180
 GGAAGTAGAT AGTATAAGGC GCCGTGGAGC CTGGCCT 217

(2) INFORMATION FOR SEQ ID NO: 2717:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 72 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2717:

ATGCATACG CGCATATACA TGCTATCCCG AACTAATATT GATGCGTATT ATGTAATTGG 60
 AGCGAAGACT CA 72

(2) INFORMATION FOR SEQ ID NO: 2718:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 139 base pairs

(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

5

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2718;

CAATATCATCA CTATATCCAT TGCCTAATAG TGATGATATT GATTGGCATA ATGGTATATG 60
GCAGATACGA TAACATAACn AACACCTCGG ATAATTGCTA TTAGCTGCGA AGTTATCGTG 120
CCTGATTAA CGATGTAGA 139

(2) INFORMATION FOR SEQ ID NO: 2719:

15

(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 79 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

20

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2719:

CTCTATCATA TCTAGCCATA TGCATGAGAT TATCGTTTAT CTCGACACGC TCTTAAAAGG 60
CGACACCGGC ATATGATGT 79

(2) INFORMATION FOR SEQ ID NO: 2720:

30

(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 53 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

35

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2720:

CAATCACAAT TGAAATTACA CAAATACAGC CCATGTCATG ACACAGACCA ATC 53

40

(2) INFORMATION FOR SEQ ID NO: 2721:

45

(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 66 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

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(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2721:

CGCCCCGAGGC TACCATTITA CCATAAAGAC CGGTCTAAAT CCTTCGGTT TCCATGGGCC 60
ATTGG 66

55

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 169 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2722:

TnCTCTGCGC AAAATGACCC AGAGCGCTGC CGGCACCTGT CCTACGAGTT GCATGATAAA 60
 GAAGACAGTC ATAAGTGGCG CGACGATATC ATGCCCGCG CCCACCGGAA GGAGCTGACT 120
 GGGTTGAAGG CTCTCAAGGG CATCGGTGCA CGCTCTCCCT TATGCGACT 169

(2) INFORMATION FOR SEQ ID NO: 2723:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 54 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2723:

CCGGCCCAAG CTGGTGATCA CCGATGTGGA GCGCCAACAT CGCATCGAGG AAAT 54

(2) INFORMATION FOR SEQ ID NO: 2724:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 54 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2724:

ATCGGTGATC ACCAGCTTGG CCGGGACAA CTGCAGACG TGCAGCAGGA ATTC 54

(2) INFORMATION FOR SEQ ID NO: 2725:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 68 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2725:

AAAACCATTTG TCCACCTTTA GAAAGCTTTT GTTTTGGGAA TACCTAAACC GTGGTTAATG 60

(2) INFORMATION FOR SEQ ID NO: 2726:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 50 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2726:

TITAGGCCCT GTAACnGnTT GCCGnTTGGn CCGTGTGTAT ATCGGGGGAA

(2) INFORMATION FOR SEQ ID NO: 2727:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 56 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2727:

GGATCAITAA ACGTGTATCA CCATCCAGTT TGCAAGACGG ATAAACTGCT GCAACG

(2) INFORMATION FOR SEQ ID NO: 2728:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 70 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2728:

ACCCATGGAG AATTAAATTT AAAAACCGTA TTCCGGGTGG ATGTGGGTG GGTAAGTTGG
 CCATACTGGG

(2) INFORMATION FOR SEQ ID NO: 2729:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 54 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2729:

ACCACCTTCC CCAATAAGCT GGCCTAAAGC CCCATAATGG GCCATGGTGC GGCC

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 74 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2730:
 TGTITGGGGA CCTTAAATGG TTCCAAATTC CAACCACCCA CAAAAGAAT TCCAGTTTCC 60
 AATTAAGCCA GCCA 74

(2) INFORMATION FOR SEQ ID NO: 2731:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 66 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2731:
 AAGTITGGGA TTAAGGCCAG TTATGGAAAG GATGGATGGT CCATTITGGC TTATTAGAAG 60
 AGCATT 66

(2) INFORMATION FOR SEQ ID NO: 2732:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 50 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2732:
 TTTGnAAAAG CChGTAAGAG TAITTGATTT TGTITGAGGC CAAACCAGAA 50

(2) INFORMATION FOR SEQ ID NO: 2733:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 102 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2733:
 AGTACCAGCG GACAATTCGG ACCCAACTTG GCAATTTGnG GTTTTGGACC AGGAAATAAA 60

(2) INFORMATION FOR SEQ ID NO: 2734:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 111 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2734:

CCAGGCTGGC AGTTTTTCTA AAATGGTGGT AGGAAAATTA nCCAAACCAT TTAGGATGGC 60
 ATGGTCTTCC ACGGATGGCG GCCGTTAACC CCAAAAAAGG CCATTCCATT T 111

(2) INFORMATION FOR SEQ ID NO: 2735:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 56 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2735:

CGTATGGGAT GGCCATTCTG ATGACACACA ACGGTTAGGT TAGCAACGTT GTCAAA 56

(2) INFORMATION FOR SEQ ID NO: 2736:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 50 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2736:

CAATCCGGGT GTGCGGGCGT GTGTACAAGA CCGGGACGA TTACGACAT 50

(2) INFORMATION FOR SEQ ID NO: 2737:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 50 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2737:

TAACATTAT TGTGGAGAAA GTnAGGTATC GTGGTAGTGA GGATTGTGT 50

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 53 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2738:
 TAAATTAAAA CCCGTCCCGG TTCCCAAAT TTGGAATTTT TTGGAACCCC TGT

(2) INFORMATION FOR SEQ ID NO: 2739:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 85 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2739:
 ATACCCACCT TGGATTCTTA ATACCCCAAA AAGGCCGGG CAACTTGGCT TAAAAAAGTG
 GCTTGTTTAA ATTGGATTTC CGGCT

(2) INFORMATION FOR SEQ ID NO: 2740:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 70 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2740:
 GGAAAGTTTA GTAGTTTAGA GTCGAAAAAT TAGTTTTCTA GTGTAACGAA TCCGGACCCA
 AATTTTTTTC

(2) INFORMATION FOR SEQ ID NO: 2741:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 53 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2741:
 CGCCCAATT TACCTGGGCG AGCAGACGCT CAACGAGGAG CACGGCAGCT GCG

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 60 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2742:

TGAAGAAATC GCACACACTA TCGAACGCAG ATCGCACATC GAATGCATCA GAATCAGCTC 60

(2) INFORMATION FOR SEQ ID NO: 2743:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 125 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2743:

TATCACCTCT TTTCATATT ATTAGAATAT ATAATGATCT TTATAGAAAG GAAAGAAGAA 60

GAGTTATCAT nCGATATCG CCCAGCGCGT CGTACACTAT GCCATGAATT ACACAATCAT 120

GCCTC 125

(2) INFORMATION FOR SEQ ID NO: 2744:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 59 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2744:

GAATTTCCTCC CGAAACCGGG AAAAATTTT CCCAACCGGT GGCCTTCCCTC CGTTCCCGT 59

(2) INFORMATION FOR SEQ ID NO: 2745:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 51 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2745:

TTTTCCTTAA GTTAGTTTTT TTATTGGGCC AAAACCGGCC CCAGGAATTG A 51

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 55 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2746:
 TAATTGGTC ATAATGTTGT TTCAGATGAA ATGCTAACAA TACACTGATT ACAGT

(2) INFORMATION FOR SEQ ID NO: 2747:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 64 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2747:
 ATGGTGGAAAT GGGATTTAGG TGGATGGCCC CCCCAACCAG CCGGTCCTTT TTAAGGAACT
 TTGT

(2) INFORMATION FOR SEQ ID NO: 2748:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 78 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2748:
 AACAAAGATT ACATGGTTG TGGAATCAT CGGTTTTAAT TAGTCCAAAA GGATGGATTC
 AATCGGTAGG GGGTAAG

(2) INFORMATION FOR SEQ ID NO: 2749:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 54 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2749:
 GCAAGTGGCG GAGTCACACT TATAGACAAG AAGTACGACA TCTGTATGT GGTG

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 58 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2750:
 TATTTAGATT CAAAGCATCA AATTGGTTTC GTACCCCTTT GCACATCGGT TGGGATAA

(2) INFORMATION FOR SEQ ID NO: 2751:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 79 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2751:
 GGAAAAACCC CCAAATTTTC CCCCCCGTT GGGAAAAGAG TTCCCAAAGT TGGAATTAGT
 TCCCAAACCC GGGAGTTCC

(2) INFORMATION FOR SEQ ID NO: 2752:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 68 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2752:
 AGAACCGAGA GATAGTCCG AGAGAGCGAG AGGTTTAAAT AGAGATGTTT GGCCGTACTA
 GTTAGCCG

(2) INFORMATION FOR SEQ ID NO: 2753:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 64 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2753:
 ATAATCTATG GGGGACCGT CTGTAAGGA ACCTGGTTGC CTGCCAATG AAGCCACCCT

(2) INFORMATION FOR SEQ ID NO: 2754:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 76 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2754:

ACAAAGGTTT TACGCCAAA TTGTTCACTG GCTAACTGGG CGATGGTTAG TATTGGCAGC 60
 GCAAAAGTGG CAGGGG 76

(2) INFORMATION FOR SEQ ID NO: 2755:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 51 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2755:

ACCTCAGGGA CAATTAAAAG TTTTCTTCG GAATGAATGA CAACAACAAA T 51

(2) INFORMATION FOR SEQ ID NO: 2756:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 50 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2756:

ACGTATTCCC TCGTTCTTAG GTCTTCTAAA CATAGGTGAC TTTTGGTTCG 50

(2) INFORMATION FOR SEQ ID NO: 2757:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 53 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2757:

AAATGCTTCG TATTAACGCC TATTTTAGCT CCGTTATAGA CACAAC TTAC ACA 53

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 51 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2758:

ACACGGCAGC GAATACTCGT TTGGTGAGCC TGTACACATC TAACACGAGA A 51

(2) INFORMATION FOR SEQ ID NO: 2759:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 115 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2759:

GGGAAACCA ATTAAGGATT TAAAGGTTnA TTAAAGGGG CCGCCACCGG GTTGGGGATG 60
 CCCTTTGGGC ACCTTAAGAA AGCCCCGATG GAAAGGGACC GGTACCTTA ACCGG 115

(2) INFORMATION FOR SEQ ID NO: 2760:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 227 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2760:

TTTGCCAGG CCAATTAATT CTGGTGGCC AATTAAATTT AAGGGGACCT TTGGGGGAAT 60
 AAGGTTTAAA ATTGGAAAAT GGTCCAATTT GGACCTTTTG GCCAATTGGA TTCCCGGCTT 120
 AAAAAGATTT GGACCGGTAA ATCCCTTTT AAATTACCTC GGGCCANGGC CCAACCAAGC 180
 CAAACCAATT TAAATCCGCC TGGAAACCAA CCCATAhTTC CTTTACC 227

(2) INFORMATION FOR SEQ ID NO: 2761:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 59 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

ACACTATTGT GCCAGCGCAC CTTGAGGTA TCTGTCATCA CTCAGCTGTT TTTTACTGT 59

(2) INFORMATION FOR SEQ ID NO: 2762:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 68 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2762:

TTATCCTGTT CCTAAGCCCG ACGGCTCGGC CACACGATTA ACCTTTAACG CCATCTTGTC 60
 CAACCTGT 68

(2) INFORMATION FOR SEQ ID NO: 2763:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 116 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2763:

TGGAAAGTAC CATATAAGTA ATGGTAGTCG TTTCAGAAAG ATATAAATCG TTGGGAAAAG 60
 AAGAAATGAC AaATTAAATGT AAATATTTGT TCATGTACAA ATAAATATAA TTTATA 116

(2) INFORMATION FOR SEQ ID NO: 2764:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 78 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2764:

TTGTACAGT GGGTAGCGG ATGCAACGGC CTTCAACTAA GTGGTTCAT GCTTGATACC 60
 AGTTATGAGT GTTGGTGC 78

(2) INFORMATION FOR SEQ ID NO: 2765:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 112 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2765:

ATATATTCTG ATGCACCTTT TGTAAGGCTT TGTAATACGA AAATTATCAC TACAATGATT 60
 5 GCTGTAACGA GTAAAGCAT ATATGGCACA CCGTTTTTAT ThGTTTTACC AA 112

(2) INFORMATION FOR SEQ ID NO: 2766:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 123 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2766:

TATTGAAGAT TTTTTCGAAG ATAAAGGTGA CACATATTCA TGTCATGTTT AATATCGTTA 60
 20 CCTTACGTAA CCATATAAGA CTGTAACCTG TGTCATATCA TTCGTAGAAC nTTTGGAAAT 120
 GAT 123

(2) INFORMATION FOR SEQ ID NO: 2767:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 60 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2767:

GTCCGGCCCA CGGAATGCC CACGGGACGA TAAGTGAGGG CACCGACGGC CGAACCCAAAG 60

(2) INFORMATION FOR SEQ ID NO: 2768:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 50 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2768:

GTACGCGGAG CACGAATCC GCGGATCTGG GAGCATCTCT AGGTAAATTT 50

(2) INFORMATION FOR SEQ ID NO: 2769:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 53 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2769:

CTTAGGTAGC TCAGTGTGTT ATTGAGAGGC CTGTTGGCAG GCCCCGACG ATC 53

(2) INFORMATION FOR SEQ ID NO: 2770:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 69 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: double

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2770:

AAATTGATAG CGTGCACAA CCAGGTCCAT CCACTGAACAT GCCAATCCAG CCCAGGAACT 60

AATTGCCCG 69

(2) INFORMATION FOR SEQ ID NO: 2771:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 52 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: double

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2771:

ACGATCATCT GGATGGATAT ACAGAACAGT GTGATTGTAC GTGTGGGGA AA 52

(2) INFORMATION FOR SEQ ID NO: 2772:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 70 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: double

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2772:

TTAACAGTAT GATATTATCA CACGTGAATA GGATATGCCA AACTGGGCAT CGTTGGGGAT 60

AGCGTAATAC 70

(2) INFORMATION FOR SEQ ID NO: 2773:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 67 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: double

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2773:

5 AACATTGTAT TCGTGATTAA GACTTCGATC GGTTCA GTAT TCGGCAGATC CACATGTGAC 60
 CATGCTT 67

(2) INFORMATION FOR SEQ ID NO: 2774:

10 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 120 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

15 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2774:

20 CACCCTTGTG ATATCACATT TGTATGTGTT AAGAGGGAGC CCCTTCCCG ATCAACTGGC 60
 GATAAAACA GTTGAAAGT GGGCGGGGT TATTATTCTT GATGACGGCG GGGTTTTTTC 120

(2) INFORMATION FOR SEQ ID NO: 2775:

25 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 50 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

30 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2775:

AACCGTTGCA GGThAAGCTG GGChCACCAT TCTTCTCTAT TAATGGTTCA 50

35 (2) INFORMATION FOR SEQ ID NO: 2776:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 57 base pairs
 (B) TYPE: nucleic acid
 40 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

45 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2776:

CATGTACGGT GTCCACACAA GAAGTATTTA GGTGGTGTG CCCGGATTTA ACCTGGC 57

(2) INFORMATION FOR SEQ ID NO: 2777:

50 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 51 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double

55

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2777:

5 AAGACCCCG GGTCCACCG GGTCCATTA AGCCAAGGCG CAGGGACCC C 51

(2) INFORMATION FOR SEQ ID NO: 2778:

(i) SEQUENCE CHARACTERISTICS:

10 (A) LENGTH: 124 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

15 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2778:

TTGTCCCGC CTAAAAAATT TAAATGAAC CCAAGGGTGT CCTGGGTTG GGTAATCCAT 60

TTTTTGAATA AACCTTTGnC CCTAATGAAT TTTTCCGCCA TTATAAGGCT GTCCGCCAAT 120

20 CCGG 124

(2) INFORMATION FOR SEQ ID NO: 2779:

(i) SEQUENCE CHARACTERISTICS:

25 (A) LENGTH: 58 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

30 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2779:

GTAAATTTGG GAATTACCG AAAATTAAGG AAAGGCCAGT AAGGGGTTTC CAGGCCAA 58

35 (2) INFORMATION FOR SEQ ID NO: 2780:

(i) SEQUENCE CHARACTERISTICS:

40 (A) LENGTH: 371 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

45 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2780:

GCATCCAGC CTGAGCACCA GGTGAGACC CTGTCTCAAG AACAAAAACA nCAACnCAA 60

AAAACCTGTT CAAACTCAC TTCTGCAGT AATCTTCTCT TGAACAAACT CACCTCTAA 120

50 TTCCACCTG CAATTGTGTG TAGAAATCCA TTCTCGTGTG TAATTTTGGG CTTATATGCA 180

CACATTGAAA ATCCAAGAGC CAGAAAGAGC TCTAAGGAAT TATCCAGTCC AGCTCTGTGC 240

55

AGCCTGGGCT AGGACCCAGA TCCTTCCCAT TTCCTGTTC CAAAAATTTT nGGCACAGGG 360

TGGCCACCCT G 371

5 (2) INFORMATION FOR SEQ ID NO: 2781:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 133 base pairs

(B) TYPE: nucleic acid

10 (C) STRANDEDNESS: double

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2781:

15 GGGGTTGCCA AAGGGGTGTT AAATTTAAGT CCGATGAAAA TTAAGnAAAA AAATCCCATT 60

TTCCCTTCGG GGTTCGTTGT TGGGGCCTTA ATTTCCCGCC AATCCAAGTT TGGTGAATGA 120

20 AATTAATTAC CGT 133

(2) INFORMATION FOR SEQ ID NO: 2782:

(i) SEQUENCE CHARACTERISTICS:

25 (A) LENGTH: 58 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: double

(D) TOPOLOGY: linear

30 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2782:

GTTCAGTTG ACCTGGATC ATCTGGTACA CACGTATCCT GCATACTATA GATGTCA 58

35 (2) INFORMATION FOR SEQ ID NO: 2783:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 50 base pairs

(B) TYPE: nucleic acid

40 (C) STRANDEDNESS: double

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2783:

45 GCTAATTATA GGCCGTGAG CATTACGnGA TCGAATCTGG CAATCACAA 50

(2) INFORMATION FOR SEQ ID NO: 2784:

(i) SEQUENCE CHARACTERISTICS:

50 (A) LENGTH: 50 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: double

(D) TOPOLOGY: linear

55

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2784:

GCCnChCTCT GTGACACTGT GTATATACAC CCGCGGGAAT ATCTCCAACG 50

(2) INFORMATION FOR SEQ ID NO: 2785:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 111 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: double

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2785:

CTTTGTCTGA CATATTGGGG CAGTGATTTT TGGGACGTT CTACATGTCG AGTACTTTAG 60

TCAGAGTTGT GAGTAGCGGA CGGGTnTACT TGATATACCC TTAATGTGA T 111

(2) INFORMATION FOR SEQ ID NO: 2786:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 50 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: double

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2786:

CATGATGATA CTTGCATGTA CGTCTACGT GAACGTACAG TTACGTTGTC 50

(2) INFORMATION FOR SEQ ID NO: 2787:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 52 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: double

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2787:

TCAGCAAGTA GTAAGGATAT CAAACTATGA TCTATTGAT GTTATGCCAT AA 52

(2) INFORMATION FOR SEQ ID NO: 2788:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 64 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: double

(D) TOPOLOGY: linear

GCATCATGGA ATATTAAAC AGCTGATATG TTGAGTAAT GATTGATTGA CGAGATATGC 60
 GGCA 64

5 (2) INFORMATION FOR SEQ ID NO: 2789:

 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 50 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

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15 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2789:
 TGAGAGAAGT CACAGTCGCC AGCGGCAAG AACCCGnnAA GATGTGnGCA 50

(2) INFORMATION FOR SEQ ID NO: 2790:

20 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 64 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

25

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2790:
 CAGTGTATGG AATCTTGTTT GAGTGTGAGA GTCAAAGACT TGGTGATTGA ATGGAAAAAT 60
 TGRA 64

(2) INFORMATION FOR SEQ ID NO: 2791:

35 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 50 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

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(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2791:
 ACAAnGGGTG AAGTTCTCCC ACATGCTGTA TACCGTGGGA TTATTTTAA 50

45 (2) INFORMATION FOR SEQ ID NO: 2792:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 83 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

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ATTCCTATTC AACACGGAT ACATAATCTT TTATATCTTC CTTCTAGTCA TATGATACTG 60
 GAATAAGTGA TATTCTTTAT AAT 83
 5 (2) INFORMATION FOR SEQ ID NO: 2793:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 64 base pairs
 (B) TYPE: nucleic acid
 10 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2793:
 15 CATATGTCAT CGTACGTAAT CATCGATGAA ATATCAACAT CTCGACTTAA TAGGTCAACA 60
 AGAT 64
 20 (2) INFORMATION FOR SEQ ID NO: 2794:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 57 base pairs
 (B) TYPE: nucleic acid
 25 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2794:
 30 CCCTACTCCG CGCAATAACC GCATTACCAG ATGCGCTTCC ACTGAGGAAC GACGGAT 57
 (2) INFORMATION FOR SEQ ID NO: 2795:
 35 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 65 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear
 40 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2795:
 AGATAAAGTG TCATCTATAT CCATCTATCA ATATAGATAT GTTTACGGCC GATTTCATC 60
 45 CGCAA 65
 (2) INFORMATION FOR SEQ ID NO: 2796:
 (i) SEQUENCE CHARACTERISTICS:
 50 (A) LENGTH: 58 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

55

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2796:

TATACGCCTC ATTACACCCA ATTGGACCCT TTACGTATGG AGTACATTAT AGAATCGA 58

(2) INFORMATION FOR SEQ ID NO: 2797:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 50 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2797:

ngCTAAGAAT TTATAAGAGG TTTCGGCAGA TATATATACG CAAGTATCTG 50

(2) INFORMATION FOR SEQ ID NO: 2798:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 118 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2798:

AAGCAGTCTT TCACAAAAG TGAATAATCA CTAGTTCATT AATTGTCATT TGAACCTTCA 60

TATAATGCAT ATTACTTAAT GTACAAGCAA AGATGTATTT ACCTATCAAA GAATTTnC 118

(2) INFORMATION FOR SEQ ID NO: 2799:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 53 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2799:

CCATAGAACC TGTGAATACC TATACATATC ATACTGTGGA ATTCGTTACG AGG 53

(2) INFORMATION FOR SEQ ID NO: 2800:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 51 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

CCAATTGAGA CTGTATTCT CTCTGTGGA TAACCGTGA TGTTGTCTG C

51

(2) INFORMATION FOR SEQ ID NO: 2801:

- 5 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 50 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

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(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2801:

GGGGGnGCAT ACCGACCGA AGCATCAGAC GATGTGAGCG ACCTACCTCC

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(2) INFORMATION FOR SEQ ID NO: 2802:

- 20 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 50 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

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25 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2802:

CCGTAGCGCA CATATGACGA GACCAAGGAT AACGTGCAAn GnCATTATTGT

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(2) INFORMATION FOR SEQ ID NO: 2803:

- 30 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 50 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

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(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2803:

CACGTCATGA ACGTGCAATC AACACAATCA TTTACGAGAT GGACCAAGAC

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(2) INFORMATION FOR SEQ ID NO: 2804:

- 45 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 126 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

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50 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2804:

TATGGTGTIT ATTITAGCGC TnGITGTGCT TTGCTTCAG CATCTATAAC CTAGTGCAT

60

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CTATTG

126

(2) INFORMATION FOR SEQ ID NO: 2805:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 88 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2805:

AAAAGCCGAT ATGGTGTTTT TTCATATCA CTCAGGACT CAGCAGCTGG AAGGAGTTAA 60

GAAGTAATAA GGTGCCACCC TAAATCCA 88

(2) INFORMATION FOR SEQ ID NO: 2806:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 66 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2806:

TGGATCCGGT ACCAAATAGG GACTACCGGG AATGTCCCGG GGGGCCTAAT GCCGAATGGG 60

GCAACG 66

(2) INFORMATION FOR SEQ ID NO: 2807:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 66 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2807:

CCCGCTAAGC TGGGAAAGT TTTGAAGTTA AGAAGGAATG GATTCTAAC GGGGCGGGGT 60

CCAAAC 66

(2) INFORMATION FOR SEQ ID NO: 2808:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 56 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2808:
 ACAAAGCAGT ACTGAACGTG TTGCTTGA GCCCGTGTG CTGTTTATC ACGGCA 56

5 (2) INFORMATION FOR SEQ ID NO: 2809:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 63 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

10

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2809:
 AGGGGGCGTA CAACATAGAT TTGCGAGATA CTCAGCAITA CACTTCCATT TAACTTATTA 60
 TCC 63

15

(2) INFORMATION FOR SEQ ID NO: 2810:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 58 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

20

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2810:
 TTAGGCGCCT GTTCCAACCG CACCCATATA AGGCGTCTGG CTGCACGCAC GACGTATG 58

30

(2) INFORMATION FOR SEQ ID NO: 2811:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 58 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

35

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2811:
 AAACCCCAAA GGAATTAATT TTCCGGTITT CCAACCCCTT AAAAAGGGAA AGGCCAAT 58

40

(2) INFORMATION FOR SEQ ID NO: 2812:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 72 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

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CATCATTAAG GCAAAACCTT TCACAAAGTC ATGAGGCGCA AAAGGTATTA TTATAACACA 60

TCCCCGCGTTG GG 72

(2) INFORMATION FOR SEQ ID NO: 2813:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 53 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2813:

CCATTAAAG CGGTACGGGG CTGGTTCAG GAAGTCGT AGACAAATTC GGT 53

(2) INFORMATION FOR SEQ ID NO: 2814:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 53 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2814:

TAGTACCCAA TTTCAGTCG AACCAGGATG GGACCAGAAG CCAAACCAAC GTT 53

(2) INFORMATION FOR SEQ ID NO: 2815:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 62 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2815:

GAAAAAAGG CCTTGTTTAC CAAAGGGGCC AATTTTTTCG GTTCAAGGTC CAAACCTACC 60

TT 62

(2) INFORMATION FOR SEQ ID NO: 2816:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 50 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

TCTGAATGAC GCCGAAATCC CATCTGAATT CATGGGATTT TCCACTTTCA

50

(2) INFORMATION FOR SEQ ID NO: 2817:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 51 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2817:

CGTTACTAAA GCTACATAGT GCGTCATTTA AGATTATAGC AAGTAGCATA T

51

(2) INFORMATION FOR SEQ ID NO: 2818:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 54 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2818:

CATTACCAT AATATTCATT GTTCCATTAG CATATCAGGC ATGTCACGTG CACA

54

(2) INFORMATION FOR SEQ ID NO: 2819:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 50 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2819:

GTGTATCAAA TGAGCATGTT nCAATGGTTC AnCATGGCGT TTATGGCACT

50

(2) INFORMATION FOR SEQ ID NO: 2820:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 50 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2820:

ACAATTGCGS CTGCTCATTG TGAGCACGAC TTATCATGG TTGGGTTCA

50

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 102 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2821:

CAGTACTACG TAAAAATGAA TCACTTGAAG ATGCGTACGT AGATTTTAAA CGTCAGTTCT 60
 AAAAAAGTGGG CAATCCAAGA GACGTAACGG AATTTCGAA AA 102

(2) INFORMATION FOR SEQ ID NO: 2822:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 55 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2822:

GAGTACTTAA TCCGGCACCG TTTACTTCTG GGGGCATCGA CTAAGTGGGG CGGCC 55

(2) INFORMATION FOR SEQ ID NO: 2823:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 71 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2823:

ATTGGTTTCT CATAAACACT TTTCTATGAA TTGTATGTA TTGTTTATT AAAATCTCTA 60
 ATTCTTATGG A 71

(2) INFORMATION FOR SEQ ID NO: 2824:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 134 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2824:

CCATTGAGTG TGAGTATATC ATCGATCAAT ATGCAACATT TATCAGGTGC ATGTTGCTTA 60

TGGATAATTG AACAA

134

(2) INFORMATION FOR SEQ ID NO: 2825:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 57 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2825:

CCAGAATGAT GAGCTACAGG ATCAGCCAG ATATGCAGGT AAACGGGCCA ACCATTG

57

(2) INFORMATION FOR SEQ ID NO: 2826:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 89 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2826:

CAATAATGCT GAACAGCAAC GCATCTCATT CTAATAATCGC TCAGAATCAC ATCCCATGCA

60

CACATAATAA GTGGCACTTA GCTTAAAAAT

89

(2) INFORMATION FOR SEQ ID NO: 2827:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 64 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2827:

CGGATTAGTG GTGTAAACTG GGTGACCCAT ACCACACCTC GCCTGTTGTG AAAAAAGGAC
TTAA

60

64

(2) INFORMATION FOR SEQ ID NO: 2828:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 51 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

TATACAGAAA ACACGGTGCC GTTATCCATT ATCACATGAC ATATGTAGTC C

51

(2) INFORMATION FOR SEQ ID NO: 2829:

- 5 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 68 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

10

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2829:

15 GAGATACGGT CTTCGTATAT GATATGTGCA TATTTAGATA GTCAATTATG AGAGAACGTG

60

GACGTGAG

68

(2) INFORMATION FOR SEQ ID NO: 2830:

- 20 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 58 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

25

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2830:

30 TGATGATTGT TTAIGATACG ATATGTAAAT GATAATCATC CAGGAGGTCT AGCATGGT

58

(2) INFORMATION FOR SEQ ID NO: 2831:

- 35 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 54 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

40 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2831:

CCTAACAAAC ATAATTAAAC CCATAAATGC ATCCAATGCG GTTAAACCAT GAAA

54

(2) INFORMATION FOR SEQ ID NO: 2832:

- 45 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 50 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

50

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2832:

55

(2) INFORMATION FOR SEQ ID NO: 2833:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 69 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: double

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2833:

GTCTGCTACC CTTTCAGAGC AACATGCTGA GTGTATAATG CCGTGATAG GGGACAATGC 60

CATTCACATA 69

(2) INFORMATION FOR SEQ ID NO: 2834:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 55 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: double

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2834:

AACACCAGCT GGTAAGTATC ACGTTACATT TTGTGCTTC ATGATTAATA AAAAC 55

(2) INFORMATION FOR SEQ ID NO: 2835:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 50 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: double

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2835:

AGAGCTTGGA TGTCGTTGGT AATTGATGCT CTAGTCCAT GGGGCCCATG 50

(2) INFORMATION FOR SEQ ID NO: 2836:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 138 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: double

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2836:

TTTCGTCACAT ATTGCTCATG CATAGACATT TGCAATACCG GCAAATGACG ATGGnATATG 60

TTAATGGTCA ATACAGGG

138

(2) INFORMATION FOR SEQ ID NO: 2837:

- 5 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 61 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

10

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2837:

15 GTTGGCAACT TCAGTCGCTA CTTTAACGCA TCTCACAGTC CTCCTCCCAA AGAGAACGTA 60
 T 61

(2) INFORMATION FOR SEQ ID NO: 2838:

- 20 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 78 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

25

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2838:

ACGTGAATCC CGTGAGGCCA ACAGTGATTG GGATAATTAC ATGGATGTTT GACTAATGGT 60
 30 CATTACACCC CAGATCAG 78

(2) INFORMATION FOR SEQ ID NO: 2839:

- 35 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 90 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

40

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2839:

ACTTAAATC TCCTCTGCC TAACTTCCAC ATTCTTATCG ATATGAATAC ACCATACGTT 60
 45 TTATAGATAA GTTGATGTTG ATGCATATGT 90

(2) INFORMATION FOR SEQ ID NO: 2840:

- 50 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 61 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

55

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2840:

TATATTAGT CTGTATACA AGGTGTATCA CAGCGTAAT ATGCCTCTAC ATGGCCATAT 60

G 61

(2) INFORMATION FOR SEQ ID NO: 2841:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 58 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: double
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2841:

GGGCCCCGGC GGCAGGGAGG AAGGGGGCAA GGGCGGCGCC AAGACCACGA CCGGCACC 58

(2) INFORMATION FOR SEQ ID NO: 2842:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 60 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: double
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2842:

TGTACAGGTG CAGTTAGACC GCCTGACGGA ACGAGCGTG CAATTGCCAG CAACGCACAA 60

(2) INFORMATION FOR SEQ ID NO: 2843:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 62 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: double
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2843:

AAACATGTGA AGTAGCGAG GTATGGACGG AGTAATGATC GCACAAGACA TAGCATCCCC 60

GT 62

(2) INFORMATION FOR SEQ ID NO: 2844:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 52 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: double
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2844:

ACGATTAGT TTGAATTTCT ATTAGGGTTT GGTGATTCTA CTACTTCTGA TA 52

(2) INFORMATION FOR SEQ ID NO: 2845:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 63 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: double

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2845:

GAITATCACA ATTATGCAAA GTTGTCTAAT CGTTAGACCA ATTTCTGTTC AAACACCACA 60

ATC 63

(2) INFORMATION FOR SEQ ID NO: 2846:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 50 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: double

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2846:

CGTTATATAA GAnCGACATG GAAGCATGAT GAAATATTGA ATACATCATA 50

(2) INFORMATION FOR SEQ ID NO: 2847:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 51 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: double

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2847:

CCACAGGTGC ATCGCCTGG TATGGAGCCG GCCAGTCTTC ACTGCTTTCA C 51

(2) INFORMATION FOR SEQ ID NO: 2848:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 113 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: double

(D) TOPOLOGY: linear

AAAAGTGTCC CAAGCTGTTT TTATTTAGAG CAACCAATCC AATTTAACC CCCCACCAIT 60
 ATTTTAAATA ATACCAATTC AGCGAAGGCC CTTCCAnGG TTTTGGAAATA TAA 113

5 (2) INFORMATION FOR SEQ ID NO: 2849:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 155 base pairs
 (B) TYPE: nucleic acid
 10 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2849:

15 CATCTGGAAC TTTTAAATC CAGAAGGTT CCAGAAGTT TCGAAATCCC TCCTAATGGG 60
 CTCATTAAAC GGATTTTAAA TTTTAAATA ATTTAGGCC AAAAAATTAA TTTCAGGAA 120
 20 AAGTAAGTTT CCAACCCGGG TAAGAAATTA CcHAA 155

(2) INFORMATION FOR SEQ ID NO: 2850:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 64 base pairs
 25 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2850:

30 CACAACTAA CATAGAAGGG CCATCATCAG GTGCTATTAA ATATCTACGC TAGATTGTAA 60
 ATCA 64

35 (2) INFORMATION FOR SEQ ID NO: 2851:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 54 base pairs
 40 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2851:

45 AATTATTAT CAATAGCTCT TTACGATTCA CAAATCTAGG TACTTTTCAG ATCT 54

(2) INFORMATION FOR SEQ ID NO: 2852:

50 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 58 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double

55

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2852:
 AAGCCCCITT AAACCTGGGCC TTTAAGGAAC GGTGGCGAAA ATCCCCAAAT TCCGGGCA 58

5 (2) INFORMATION FOR SEQ ID NO: 2853:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 103 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

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(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2853:
 AAGGTTTCC ATTCGGTCCC ATTAAGATT TTTTGGAAAT TCATGGGAAG GATGGTTGGT 60
 CCTTTAGGCC TGGTAGGTTA TCCTTTTTGn AGGTGGTATC CAG 103

15

(2) INFORMATION FOR SEQ ID NO: 2854:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 55 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

20

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2854:
 GGCCACGGTC ATTCCTCCAA GCCAACCCAGT GGACAAGATG GGTGGAAGGC GCAGG 55

30

(2) INFORMATION FOR SEQ ID NO: 2855:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 53 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

35

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2855:
 TATTTGGCAT TCAAATAACG TAAACGGATT TTGAAGTAAT TTACATAAAG AGG 53

40

(2) INFORMATION FOR SEQ ID NO: 2856:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 53 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

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(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2856:

ACAAATTGAC AATGACTGGG ATGCTGACAC TTGATATGAA GACAAITGAA GAT 53

5 (2) INFORMATION FOR SEQ ID NO: 2857:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 50 base pairs

(B) TYPE: nucleic acid

10 (C) STRANDEDNESS: double

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2857:

15 AACTGCGTTA CATGCTTTGC TTTTAACTGA ACCAGAACA ACGGTTTCGG 50

(2) INFORMATION FOR SEQ ID NO: 2858:

20 (i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 50 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: double

25 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2858:

30 CTTTnnTAnC TTCATCTCTA TTATTATTGT CCGAATTACT ACGTGGACAA 50

(2) INFORMATION FOR SEQ ID NO: 2859:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 66 base pairs

35 (B) TYPE: nucleic acid

(C) STRANDEDNESS: double

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2859:

40 TCCAGGTCGA ATTATTGCC AATTAGCCTC CCGGGTTAAA AGGGTGGGTG TCGGGTAAAA 60

TCGTAC 66

45 (2) INFORMATION FOR SEQ ID NO: 2860:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 72 base pairs

50 (B) TYPE: nucleic acid

(C) STRANDEDNESS: double

(D) TOPOLOGY: linear

55

GGTATCCAGT CCCCGGAGG GGTGACAAAC TTCCACGCC AGTGGGGGGA CTACCGTTTT 60
GGACCAAAGC CC 72

5 (2) INFORMATION FOR SEQ ID NO: 2861:

(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 58 base pairs
(B) TYPE: nucleic acid
10 (C) STRANDEDNESS: double
(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2861:

15 AGTGTCGAAC AATTAAAGAT ATTGAGTGAC AGGATTGCTT AAGGGCCGGT CGGAACAG 58

(2) INFORMATION FOR SEQ ID NO: 2862:

20 (i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 50 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

25 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2862:

30 TTAGCGGTAA ATCGAAGAA CTAAGAAGAC GTCAAGAAGG GGATATACGC 50

(2) INFORMATION FOR SEQ ID NO: 2863:

(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 50 base pairs
(B) TYPE: nucleic acid
35 (C) STRANDEDNESS: double
(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2863:

40 GCAAAAnTGA GAGCTCAAnC TGCAAnnAAGC AAATCAACGA AAGATTAGTT 50

(2) INFORMATION FOR SEQ ID NO: 2864:

45 (i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 246 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
50 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2864:

55

AACTATTCTG GATTGTGCA GTGGCTATGG GGATGAGTGC GTTCCCCTCT TTCATGACGC 120
 AGGCGAACGC CAGCAACGCA ACCACTGATC AATGCTGAGC CAGCTGTAGC CGCCCAGACG 180
 5 GAACAAAATC CGCACTGGGG GCAAGTGATG CCGGCGGTGC AnGGCGCTGA TgncAGTTCC 240
 TGGCAG 246

(2) INFORMATION FOR SEQ ID NO: 2865:

10 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 50 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 15 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2865:

20 ACAGATGATA CCTCTTGATC ACTTGCCAGA GATCGTCTAA GTCGTCCTTG 50

(2) INFORMATION FOR SEQ ID NO: 2866:

25 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 51 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

30 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2866:

AATACCACGC TGACCTTAAT AAGCCATCAT GGGGAAATC ATGACCGCAA T 51

35 (2) INFORMATION FOR SEQ ID NO: 2867:

40 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 50 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2867:

45 CAACTTGGTA AGTGGTCGTT TTGGGCCCCA CCCTACCCGT TTGGACCTGG 50

(2) INFORMATION FOR SEQ ID NO: 2868:

50 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 223 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

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(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2868:

CCCAACCCGG TTCCGGGCCT TAATTTTtTn CTTTTTAAAG GAAAAAAGG AAAAACCGGT 60
 5 TAATTCCGGC CCAAAAAACC CGGAAGTTGG AAACCTTTT TTAATAAAAA TAATGGACCG 120
 TCCCAACCTT TGTGCGCAA AGGTGGCCTA AAGGTTTAAA AAAAACCGTT AAAATCCATG 180
 10 GCCAGGATCC AGCCTAAAA TGAACCATTA ATAATTGATA AAC 223

(2) INFORMATION FOR SEQ ID NO: 2869:

(i) SEQUENCE CHARACTERISTICS:

15 (A) LENGTH: 66 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2869:

TGGACCTTTG GTAATATGAA TTGAATGGTG CTTTGTGGAA ATCGGGAATT CGCCTCGTGC 60
 25 CTTGTA 66

(2) INFORMATION FOR SEQ ID NO: 2870:

(i) SEQUENCE CHARACTERISTICS:

30 (A) LENGTH: 50 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2870:

35 AAnAGCCAnG ATCATGGTAT ATCCATTAAg AGACGAGAAG ATCGATGCCCC 50

(2) INFORMATION FOR SEQ ID NO: 2871:

(i) SEQUENCE CHARACTERISTICS:

40 (A) LENGTH: 125 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 45 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2871:

50 TTATTGGAC TTACAAGGAG AATAGTCAnT TCTAGGAAAG TGGTGCAGAA GTCACCTTACC 60
 AATATACGGG GATATTTCAT CCATCGTCGG TCGTTCATAT GATACGGAAT TAACACGCCA 120
 CTCGG 125

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 62 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2872:

CAACACCTGA CGTGTATAGA ACTCATCTCT TCAATAACGT CGTGTGAGG TTACGAAGTC
 GA

(2) INFORMATION FOR SEQ ID NO: 2873:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 54 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2873:

TATACATTCC ATTTAACACC TTAACACATG CAAGTTACTT CCTCTCAAG CATC

(2) INFORMATION FOR SEQ ID NO: 2874:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 56 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2874:

GCTGAAAGGA GACTTCTGCA GGTGTGATCA CAACTGCAC ATCTACACAA GCCATT

(2) INFORMATION FOR SEQ ID NO: 2875:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 112 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2875:

AGCGGACCG CGAGAAGGA GGGGGAGCCA GAGCAGCAG AGGCCCCAGG GCGAAACCCC
 CAAGAGGAGC GAGnAAGAAG GAGGGAAAGC CCAGCAGGGG CGCCCAAGCC AG

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 50 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2876:
 GnGCGTTnnA nCGGTCGCGT AGAGATGTCG GGTCTGTAGT AGATCTGGGG

(2) INFORMATION FOR SEQ ID NO: 2877:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 68 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2877:
 ACCTTGACTT TGCAGACGAT GATGCTTTTG GCTGGGATCT TCACCATCTG GCAACTGAAT
 ATGGTTGG

(2) INFORMATION FOR SEQ ID NO: 2878:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 53 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2878:
 CTCCACCTGA TGCAIGCCCC CATATCAGGA AAATGATAAC CTCGGACACC TTC

(2) INFORMATION FOR SEQ ID NO: 2879:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 75 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2879:
 GGGAACTTTG ATCTGCCCTT GAAATCCTGA AAAATGTTTG CAAACGGGAA TGATCTTGTG
 CCTTGCTTTG AATGA

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 341 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2880:

AGAGAGGCCG AGATGGCAGA TGAGATTGCC AAGGCTCAGG TCGCTCGGCC TGGTGGCGAC 60
 ACGATCTTCG GGAAGATCAT CCGCAAGAAA TACCAGCCAA AATCATTTTT GAGGATGACC 120
 GGTGCCTTGC TTTCATGAC ATTTCCCTC AAGCACCAAC ACATTTCTG GTGATACCCA 180
 AGAAACATAT ATCCCAGATT TCTGTGGCAG AAGATGATGA TGAAGTCTT CTGGACACT 240
 TAATGATTGT TGGCAAGAAA TGTGCTCGG ATCTGGGCCT GAATAAGGTT ATCGAnGGTG 300
 GTGAnTGAAG TTCAGnGGTG GACATCCGTC TATCACGTTT A 341

(2) INFORMATION FOR SEQ ID NO: 2881:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 50 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2881:

GCGGTTACTG TGTAATGGCA TTAATATGA AACGAGCCGA TGGAGCGTTG 50

(2) INFORMATION FOR SEQ ID NO: 2882:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 81 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2882:

CTCATCATTT GTAGTTGGAA AGGTTTATGT ACATTGGAA AACACCGACA CATGACGTAT 60
 CTCATTGCA ATTTACAAA G 81

(2) INFORMATION FOR SEQ ID NO: 2883:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 77 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2883:

5 TTTTTTTTT TTTTTTTTT TTTTTTTTT TTTTTTTTT TTTTTTTTT TTTTTTTTT 60
TTTTTTTTT TTTTTTT 77

(2) INFORMATION FOR SEQ ID NO: 2884:

10 (i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 104 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
15 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2884:

20 ACGGTGTGCT TGATGCACIT GGAACGTGTA GTTTGGGTGT GACTTTGCIT TGGCTTGCTT 60
GCTGAATGTT TTGACTATGC ATTGCGTATA TGACTTGNAG CGCG 104

(2) INFORMATION FOR SEQ ID NO: 2885:

25 (i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 127 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
30 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2885:

35 AGCAACGTGT CTGTCAACGT GGTGTCATTG GAAAAGGCGT CATGTATTGn CCGGTGGGAT 60
TTACGTGTAG TCACACATGT GCCCAATTAT TGTTTGAGG CCAACTTGAG TAGGTTGATG 120
GTTATGT 127

(2) INFORMATION FOR SEQ ID NO: 2886:

40 (i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 51 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
45 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2886:

50 TGAGCGAGTG CTGTGTGAGC GCGAGGTTGT GAGAGITAGA ACCTTGAG C 51

(2) INFORMATION FOR SEQ ID NO: 2887:

55

- (A) LENGTH: 63 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

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(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2887:

10 TTGAAACCGC GAACCTGAGT TCTGGTTAAC TACAGTCTGG TATACACATT GAGGGAAGT 60
 TCG 63

(2) INFORMATION FOR SEQ ID NO: 2888:

15

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 50 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

20

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2888:

25 AGTAnCATAc nCAACTATCT CAGCATAcAA TATTGgncAC CTGCAGCTT 50

(2) INFORMATION FOR SEQ ID NO: 2889:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 115 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

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(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2889:

AAAnATAATC CCGGTTTTAT CCCCTACCT AATTAGTGGG AAAAGTACCA ATTGCCAATT 60
 GGTAAnATAG GTTGCCATAA CGGCCTCCCA AAAGTAAATT CCCTTTTTTG GTTTA 115

40

(2) INFORMATION FOR SEQ ID NO: 2890:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 147 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

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(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2890:

AATCGGTCGG TTACTCTT CATAATATTG TGGCGCAACC ATTCAACTT TATCTTTTCT 60
 TATAAATAGC ATCATCGCAA TAHTAAAGAA TAATATCGGA ATGATTAAAG TAACGATAAG 120

55

(2) INFORMATION FOR SEQ ID NO: 2891:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 400 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2891:

AACACAACAA GTTGTTAAAG ATGCATTTTT ATCACAACAT AAATCTATTG GACGTAAAGC 60
 TCAAGAAGCA TACTTATCAT ATCGTTTAGA ACAAGAGTAT AGTAAAGATG ATATCTTCCA 120
 AGTATATCTA AACAAAATTT ACTATTCTGA TGGCGTAACA GGTATTAAAG CTGCTGCTAA 180
 GTATTACTTT AATAAAGATT TAAAGATT AAACCTAGCG GAAGAAGCTT ATTAGCCGG 240
 TTTACCTCAG GTTCCAACA ACTATAATAT TTATGATCAT CCAAAGCTG CTGAAGATCG 300
 TAAAnCACT GTTTTAACT TAATGCATTA TCATAAACGC ATTACAGATA AACAGTGGGA 360
 AGATGCTAAG AAAATCGATT TAAAGCGAA CTTAGTAAAT 400

(2) INFORMATION FOR SEQ ID NO: 2892:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 149 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2892:

CCTAATTAAA CCTCCATCCA TCCTTTTGAA GGGGATCTT TAATAAAhCC GGAAAGTTTG 60
 GGGGAAAAAT CCTCCATCCT TTGAAGGGGG GGGCTTTCCA ATGGCCTTTA AGAATGGCCT 120
 TTTCCAAGCC AACTTTTAAT TCCCCCGGT 149

(2) INFORMATION FOR SEQ ID NO: 2893:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 130 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2893:

GCCCGAAGTA TTCTTGTAAG TATTATGATA CTCGGThCTT TTTATGATT ATGTTAATTT 60

TTATGTTAGT 130

(2) INFORMATION FOR SEQ ID NO: 2894:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 65 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: double

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2894:

GATGAGACCT GAATTGATTG CAACCCAAAT CGGCATATGC AAATTGCATT AAAGTTGGTT 60

CAACG 65

(2) INFORMATION FOR SEQ ID NO: 2895:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 102 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: double

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2895:

CGCACACAC ATTTAGCGAC TCAGATGTCG CGCGAATGGA CCGATATGGC GTGTCTACAC 60

ATTGTCATAT TGTACGAATA GATGAGAAAT TnCAAAGACC GA 102

(2) INFORMATION FOR SEQ ID NO: 2896:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 69 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: double

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2896:

ATTAAGTGAT GGGCTAATGT TTACGCCCA ACCAAAGGTT TCCAAAGAGC CCTTGTGGG 60

CCTGTGTTG 69

(2) INFORMATION FOR SEQ ID NO: 2897:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 80 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: double

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2897:

ATTGAATTAA TGTCCCAACC AAACGAATGG TTGCCCTTTT TCCATCCAAA GGGGGCTAAT 60
 5 TGGGAAGGGT ATTGTTCCCG 80

(2) INFORMATION FOR SEQ ID NO: 2898:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 53 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2898:

CAAATCCTGG AGATGAGCGT AACCAAAAAT AACGTTGAGA AAATGACCAC ACA 53

(2) INFORMATION FOR SEQ ID NO: 2899:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 51 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2899:

ATCGTGAACC TCTCATCCAA TCATCATGT GAGTGAATTG GATGACCTGA A 51

(2) INFORMATION FOR SEQ ID NO: 2900:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 52 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2900:

AGCTTTCAGG GCTATATCAG ACCACGCGAT TCATCCAGTG GAATGAAACA CG 52

(2) INFORMATION FOR SEQ ID NO: 2901:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 50 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

GGTACTGACA GAGGGACAAG GTGGAAAGGn TGCCAATGTA AGAATACGGT

50

(2) INFORMATION FOR SEQ ID NO: 2902:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 72 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2902:

TGTCCTGGAAT TCAGGTGAAT TGATGCGGAG ATTTAGGTGA TTAAGGAGTG TTGATTATGA
 AGATGACCAC TT

60

72

(2) INFORMATION FOR SEQ ID NO: 2903:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 50 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2903:

CATGCCAAAG CAGTAGGCAA GCCGCTTAGC AAGCCAAAA CGTCAGCCCA

50

(2) INFORMATION FOR SEQ ID NO: 2904:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 58 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2904:

TTGATGTTAC CTGATGCGAA TCTTGACCAC CTGGCAGGGT CTCATTGTTG GGTATCGA

58

(2) INFORMATION FOR SEQ ID NO: 2905:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 69 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2905:

GCGGTCTAT

69

(2) INFORMATION FOR SEQ ID NO: 2906:

- 5 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 53 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

10

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2906:

15 ATTCATTAG GTTCAATTAA AAATTAACGG GGTTATGGTT CCGGTAATTC GGG

53

(2) INFORMATION FOR SEQ ID NO: 2907:

- 20 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 57 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

25

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2907:

AAAGCTAAGA AAGGAGGATT AGCTGGTAGT GGAGGAATGT TAAGTGAGGC TGGTGAT

57

30 (2) INFORMATION FOR SEQ ID NO: 2908:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 86 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 35 (D) TOPOLOGY: linear

40 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2908:

GGGAATGGCG CATGAACGTG CACATCAAAT GACACTGCAG GAAATCAATT AGCACGGATA

60

TGGCATAAAG ACAATGGTAA AAGTGG

86

(2) INFORMATION FOR SEQ ID NO: 2909:

- 45 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 50 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 50 (D) TOPOLOGY: linear

55 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2909:

(2) INFORMATION FOR SEQ ID NO: 2910:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 109 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2910:

GAATTGTTC CGAGSTATCG AGGACTACGC TTATAAGGTG CTTACAGATA CATTTCATCAT 60
 TAATGGCGTG TGCTGCTGTA TGGGTTATAC TGTTACAGG TTTAAGAGA 109

(2) INFORMATION FOR SEQ ID NO: 2911:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 60 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2911:

TTGTCCCAT AGGGAGAAAT AATCCGCCT GGGCAAAACC AAATCCAGG GCTTCTAAGG 60

(2) INFORMATION FOR SEQ ID NO: 2912:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 55 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2912:

TAGATGTATC CAGCTGACAT TAGCTATTGG TAAGGTAACG GCTTACCAGG CAACG 55

(2) INFORMATION FOR SEQ ID NO: 2913:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 123 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2913:

GCCATGAGGC CCACCATCC ATGTTTATGG ATGGTGATT GGGGAATTAC TTGTTTCAA 60

TCA

123

(2) INFORMATION FOR SEQ ID NO: 2914:

- 5 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 58 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear
- 10

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2914:

15 ATCCGTAATT CTGGCTTACC AAGGGTTTAG GCCAATGGGC CATTCTTTTA TTAAACCC 58

(2) INFORMATION FOR SEQ ID NO: 2915:

- 20 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 50 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2915:

25 TGGTGGACA GTGGTAGGCT TTTTACGGTn TGCnGGCGAG AGTTCGTAG 50

(2) INFORMATION FOR SEQ ID NO: 2916:

- 30 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 68 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear
- 35

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2916:

40 CTGTTACGCT ATGCCCCCA GTTGTAATGTT GAGTGAATC GTGTTTTTCG ACCTGCCTTT 60
 GCTTTTTT 68

(2) INFORMATION FOR SEQ ID NO: 2917:

- 45 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 65 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear
- 50

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2917:

55

GGAAA

65

(2) INFORMATION FOR SEQ ID NO: 2918:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 101 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2918:

AAATTCCAAT CCTGGAATG GGATTCCATG GThTTGGAA AAATCCGCCA CCCCCAAAAA 60
 ATAAATGGGT CCCTTCCCTT GGAATATTA CCTTTACCAG G 101

(2) INFORMATION FOR SEQ ID NO: 2919:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 75 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2919:

TAATAAATCC ATGACCACCG TCACGACGAT CTGACTGATA AACTAATGAC ATATGACTGG 60
 TGTACACACC GTATG 75

(2) INFORMATION FOR SEQ ID NO: 2920:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 56 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2920:

CITGGATTGA CCATCATAG TTTTGGTCAC TCTAAGTTGT ACTGTCCGTT GTACAA 56

(2) INFORMATION FOR SEQ ID NO: 2921:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 65 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

GTCATGTGCT TGTATATTAA TCCCTGAAAT TGACCGTGTA TATCCCGTCG ATCTATCTTG 60
 TCCTG 65

(2) INFORMATION FOR SEQ ID NO: 2922:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 50 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2922:

GCAATATCTCT AATCTGTATG TTACAGCACA TGGATATAGC ACATCCGGGC 50

(2) INFORMATION FOR SEQ ID NO: 2923:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 54 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2923:

TGTGATTAA CAGGATTACA CAGGTGTACC AGCCGATAGT TGATTAAGCT TCTT 54

(2) INFORMATION FOR SEQ ID NO: 2924:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 50 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2924:

ATCTGCGGAA GTGCTGAAAA ACCACTnCAC TAAAGGCATA GGAnCCACAC 50

(2) INFORMATION FOR SEQ ID NO: 2925:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 52 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2925:

(2) INFORMATION FOR SEQ ID NO: 2926:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 62 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2926:

TTGGTCACAT TTATTCTCGT GTGTGCCGT TCTTCTTCAG TACTAAAGAC AAGGTGATTC 60
 GG 62

(2) INFORMATION FOR SEQ ID NO: 2927:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 56 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2927:

CAAAAGGCTA TCCACCTGA TTGCAAAG GAACGGACT GCAAGGGAAG TCTCAG 56

(2) INFORMATION FOR SEQ ID NO: 2928:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 400 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2928:

TGATCTTGCT ATTTAGTTGC GGCITGGATT CATTGGCAT GGTAAAGATT AAATTAGATG 60
 CTTTCATCAT TCAAGATTTC TTATGTTAG CATTCTTTAC GACAATCGGT CTGGTGCAT 120
 CATTGAAATT ATTTAAATTA GGTGGCAAAG TCTTGCTATT ATACTTTATG TTTTGTGCTA 180
 TCATTTCAGT CATTCAAAAC ATAGTTGGTG TATCACTAGC AAAAGTATTA AATATTAAAC 240
 CTTTGTTAGG ATTAACAGCA GGTTCATGT CTATGGAAGG CGTCATGGT AATGCTGCTG 300
 CTTATGGTAA GACAATTCAT GATTAGGTA TTGATTGGC ACTGACAGCG GCTCTTGCAG 360
 CTGCAACTTT AGGTCTTGTA TTGGAGGGC TATCGGTGGT 400

(2) INFORMATION FOR SEQ ID NO: 2929:

(A) LENGTH: 400 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

5

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2929:

10	CTGAACCGAT GCGCACTTT GCTACGCCAC CTACAGCAGA TCCCAngGGG GgGAAGCTT	60
	ATACTGAAGC TCTACGTTCA ACATTTTTC ATTGGGGATT CCATGCTTG GCTGTTTATG	120
	GTGTTGTTGC GTTACGTTTG GCATATTGCG AATTCGGTAA AGGTGAACCA GGTTTATTAT	180
15	CTAGAACTTT ACGTCCTCTT TTAGGTGATA AAGTAGAAGG TCCTATTGGG ATTTTATTG	240
	ACGTTTATC TGTATTGCG ACAATCGTTG GGGTAGCCGT TTCGTTAGGT ATGGGTGCTC	300
	TACAAATTAA TGGTGGTTTA CATTACTTGT TCAATGTTCC AAACAATACG TTTGTACAAG	360
20	CGATTATCAT CATTGTTGTT ACTATCTTAT TTATAGCAAG	400

(2) INFORMATION FOR SEQ ID NO: 2930:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 400 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

30

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2930:

	ATGTAGATCT ATATGATGAC TTTTACAAG ATCCATCATC TGTACCAGAA GATTTAAAGT	60
35	CTTATTGAGC ACAATTAAGA ATGATGACTC AATTGTACCA GCTTTAAAAA GTACAAGTAG	120
	TCAAAATAGC GACGGACAAA TTAAGCGTGT CATGCGTTTA ATTGATAATA TTCGCCAATA	180
40	CGGGCATCTT AAAGCCGATA TTTATCCTGT AAATCCTCCA AAAAGGAAAC ATGTACCTAA	240
	ATTAGAGATT GAAGACTTTG ATTTAGATCA ACAGACTTTG GAAGGTATAT CAGCAGGAAT	300
	TGTTTCAGAT CACTTTGCCG ACATTATATGA TAATGCCATAT GAGCAATTT TAAGAATGGA	360
45	AAAACGTTAC AAAGGCCCAT TGCATTTGAG TATACCTAT	400

(2) INFORMATION FOR SEQ ID NO: 2931:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 400 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

55

GGITATACAA TCTAGAATCG CATGATAATT TAATGCTACA AATCGATAGT ACAATATATC 60
TACCGTGAAT AACTGTGCAA ATAGTGACGT TGTAGCCGCC ATACGCATTT CATTTTCATC 120
5 AGTTCTGCCA TAAATCAATG CATAGTCTGC AATTTGAGCC ACTGGATTAT TAGCTGTACT 180
AGATATAGTT ATGATGGGAA TACTGTAATG TGTGGCCACC TGTGCAATTG ACTGCAATTC 240
10 ACTATGACT ACCTTGGATT CGTCACAAA ATCATGCAAT CTCTATCATC ATGCGTCGCA 300
AATGTTGACA CAAGTGAAT GCGTTTCCAT GTAATAACCT GACATTGAA GCCATACGAG 360
ATAACTTTGG AAAAAGATCA CCAATAGnCC AACTCGATGG 400

15 (2) INFORMATION FOR SEQ ID NO: 2932:

- (i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 392 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
20 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2932:

25 CTTTCAGTAG CAGCTACAAT TGTCTTAAAC ATTTAAGTTT AAAGCTGTAT GTGTCAACCG 60
CAAATACCGA TAGCCATTCA CTAATGAAGT TTCAACTAAT TTAGTACGAT CTGACAATAA 120
30 CTTTTGTAA TCTTGGGCTG CTTCAGCTGA TACAGCAATA TTTCTCATTG TTTTAACAGC 180
TTCTTCAGGA TATAAACCG CAGCAGTTTC ACCAGATAAC ATTACTGCAT CTGTACCATC 240
ATAGATTGCG TTGGCAACGT CACTAGCTTC TGCACGTGTA GCACGTGGGT TACGTTGCAT 300
35 AGAATCTAAC ATTTGTGTAG CTGTAATAAC TGGTTTACCT AATTTGthnAC ATTGTCTGAT 360
TAAATCTTTT TGAACCATG GGACTTTnTC AG 392

(2) INFORMATION FOR SEQ ID NO: 2933:

- 40 (i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 400 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
45 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2933:

50 TGACTATGGT ATCGCATGTT GTGTATCAGC GATGACAATT GGTAAACAAA TGCAATTCTT 60
CGGTGCACGT GCGAACTTAG CTAACACATT ACTTTACGCT ATCAATGGTG GTAAAGATGA 120
AAAATCTGGT GCACAAGTTG GTCCAACTT CGAAGTATTA ACAGCGAGTA TTAGAATATG 180

55

ATTAATGTT ATTCAGTACA TGACAGATAA ATACAGCTAT GAACGTAATT GAAATGGCAT 300
 TACATGATAC AAAAAATTGTA CGTACAATGG CAACAGGTAT CGCTGGTTTA TCAGTAGCAG 360
 5 CGGACTCATT ATCTGCATTn AATATGCACA AGTnAAACC 400

(2) INFORMATION FOR SEQ ID NO: 2934:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 400 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2934:

AAAATATGCC ATGACTGGCA TGACAAGAAT TGGACGTTAG AAGCATCTCA AACTGGTACG 60
 20 TTCAGAGGTC GTAACnTAA CTTCAATGGT GAAGGATTCT CACGTCAAAC ATTTAAAGTA 120
 AATGCCGTTA GTCAAAAAGA CTACGACAAA TGGGTGAAAG AAGTTAAAGG TAAGAnAACG 180
 TTAGATCAAG ATACATTTGA TAAACAATTA TTACCAAGCA CACCTAATAA AGCTTTAGAA 240
 25 TTTAATGGTA CACATATGGC GTTTGTGTAT CCAGCAGCCG ATCCAGAATA CATCTTCTAT 300
 GCATATAAAC GTTTCaATT CGGATTGAAG GTCCCAAACT TCACTAGTGA GGAAATATG 360
 30 TTTAAGGTGT ATCAGACAAA CCCTTAATAC CTGCTCGTGA 400

(2) INFORMATION FOR SEQ ID NO: 2935:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 400 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2935:

ATGGAGTATA CAACTACTTC GGCATTGGCG CTTACGACAA CAATCCTAAC TACGCAATGA 60
 CGTTTGCAAG GAATAAAGGT TtGACATCTC CAGCAAAAGC AATCATGGGC GGTGCTAGCT 120
 45 TCGTAAGAAA GGATTACATC AATAAAGGTC AAAACACATT GTACCGAATT AGATGGAATC 180
 CTAAGAATCC AGCTACCCAC CAATACGCTA CTGCTATAGA GGGTGCCAAC ATCAAGCAAG 240
 50 TACAATCGCT AAGTTATATA AACAAATCGG CTTAAAAGGT ATCTACTTCA CAAGGGGTAA 300
 ATATAAATAA AGAGGTGTGT AAATGTACCA AATAAAAGAT GTGAAACGAG AATTAATAAT 360
 GATGGTGTG ACTTAGGTGA CATTTGGCTG TCGTTTACA 400

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 400 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2936:

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AAACAATACA AACAAAAGAA AGTCAACCAA GGATGGATTG CTATTTTAAT CCTTGGTTGA      60
CTCTTATITTT ATTATAAATTG TAGAACCTAG AAAATAAAGT TTAATTAAAA GCACCAATCA      120
TTTCTACTTT GAAATCTAAG GTTCTAAAA TAGCAATGAC TTCTTTTATA TCGGTTGTAA      180
TTGCAGAATC AGCCTGAACG AAAAATCGAT ACATACCTAA TTGTGTTTTT AAAGGACGAG      240
ACTCAATCCA GGGTAAATTA ATATTAAACA AAGCAATGT ATTAAGCACA CTTGCTAACA      300
ACCCGGGTTA TCATGCATTG GTGTAATTA AAACATCAAT GGTGTCGCAT TTTGATCAA      360
TGCTGCTGAT TTTTATAAC TAAAAACGTG TCAGGTATGT      400

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(2) INFORMATION FOR SEQ ID NO: 2937:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 400 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2937:

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TTATTATCTT GATACATTGA GTGTATATTC CATTTCCAT GAGGCGTTAA ATAACGCATA      60
CCAAAGCATC TGTACCACTT TTAATTTCTT TATCTCTATT CCCAAATACC ATTGGCGGCA      120
ATGTCGGTTT ATATACTGGT AAGCTCTCCC CAAATTGTTG GAAAACTTCG TGATCCACAT      180
AATAACTTTG GACGTCCTGT TAATGTTCTA AAAGTACTA GACGTTCTAT ATTCTGTGTA      240
AATGGTGGAA TATCGTCGAC CTGTGTTATT TGAACCGGGG AATACTGCTG TCGGTATTAC      300
TTCTCGTGTG TGTGGAAGTT ATATTAAAA ACGGAAATTT TCTCAGCAGC GntTCGTTA      360
GGAAATATCT TTTAACGGGC ATTCAGTTT GTTCnTCGGG      400

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(2) INFORMATION FOR SEQ ID NO: 2938:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 400 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2938:

TATCTCTTAA AGCCGGTGAT GGTGGTAATG GTATTACCGC ATACAGAAGA GAAAAATATG 60
 5 TACCATTGG TGGACCAGCT GCGGGTGACG GTGGTAAAGG TGCTTCAGTC GTATTGGAAG 120
 TGGATGAAGG TTTAAGAAGC TTATTAGATT TTAGATATCA ACGTCATTTT AAAGCAAGCA 180
 AAGGTGAAAA TGSCCAAAGT AGTAATATGC ATGGTAAAAA TGCGGAAGAT TTAGTATTAA 240
 10 AAGTCCACC TGGTACAATT ATTAATAAATG TTGAAACAGA CGAGGTTTAG CAGATCTTGT 300
 TGAAGATGGT CAAAGAGCTG TAGTAGCGAG GCGGGTCGAG GTGGCCnAGG TAATTCACGT 360
 15 TTGCAACAC CTAGGAAACC CTGGCACCTG GACTTCATGG 400

(2) INFORMATION FOR SEQ ID NO: 2939:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 384 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2939:

CTAACCTCGA GTTGTATTA TGCCACCAC ATGCTGCTG GCTTGTGTA AATATTAA 60
 30 GATTTCBAAG TTGACAAGC TTTTGGAAA CTTCTTCTA CTGACATAAT AGGATCTTCA 120
 TGTTCATAC TTAATACATA ATCATATCCA TTAATAATAA GTTGACTTAT GATATCTGCC 180
 CATACATATG GACTATGTCC TAAGCCAACT GTACGGAATG TCATGCTCTT GTCGCAACGT 240
 35 TACCATATGG TTGCATATCA GTTAGACCAT ACATATTAC ATTTCTTGG ATTAATATAC 300
 GTATCTTTAG CATGGAAGTG ATGAATTGCA TTTGCTTGGn CTAATATGCG AATCGCAGCC 360
 AATTGGGTCA ATAnCnTGGC CACC 384

(2) INFORMATION FOR SEQ ID NO: 2940:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 400 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2940:

TTTTCATTTT TTCTATTAT GATTTCATAT GTAGGGTGAT TGCAATGTCA TCTAAGCCAT 60
 TTACAAGTTT ATTCTTCCAA GTTTCATCAA TTTCAAATG GAAACGCTTG TCTGGTGATG 120

CACTTTTTC TAAACGATA GGCAACATCG CATTTTTAGT GCAATTCATA TAAATATGT 240
 CACTGAAACT TCCTGCAATA ATAATATGAA AACCATAGTC CTTAAGAGCC CAAGCAGCAT 300
 5 GTTCACGACT TGAACCAT CCAAAATTAT CTCCAGTnAT TAAATnGGAG GCCCTTTTAT 360
 ATTGTGGTTT GTTAGGGTTG AATCAGGTT TnTnGGAACC 400

(2) INFORMATION FOR SEQ ID NO: 2941:

10 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 409 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 15 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2941:

20 ATCATAATCC ATCGTGCCTC CAAGAAGTAC TTGATTATTT AAAGTTTGTA TTGTGAATCC 60
 TGTGCACATT GTTCTCACTC CTCTGTACCT TCATTACTT TAATCACTTT CAAATAAAGC 120
 TGTTCACCTT AAACATACTA TAAAAAATCA ATTATACAAG CAATTAATGT ATATTCACTT 180
 25 TCAATAACTG TGTATGATA TGTAAAGAAA TCATGACTTA TGTGTGAGTG AACGATCATC 240
 TATACATCCG TTCACCTTCAT CTCATGACTT TCTATATTTA ATTTTACAA GGgAGTGACA 300
 30 TCTGTGAATA ACACACAATC TTCACCAOGC gTAAaTaTtAT TaTTGCGATT ATGTTGTCTG 360
 CATAACATAT GGTGTGTGCA CAATCATTAT TAATATAGGA CCTCCGTTG 409

(2) INFORMATION FOR SEQ ID NO: 2942:

35 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 400 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 40 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2942:

45 ATGAAGTGTC AAAAGGTTTA AAAACATCTG AAAGGGGTTT GCACATGTTT TAAACTTTAA 60
 AAATAAAGGT GGATGTCCTA AATGTCGACC AGCAATCAAC TATTATTTTA ACATGGTTTA 120
 TCCACATGAT CATGAAGATG AAAGAGAATC AAGATTGTCT AACGAACGTT ACCATGCGAA 180
 50 TATTCAAATG GATGGTACAT TTTCTGTTAT ACCTCAAATG CGTGGGGGTG TTACAGATGC 240
 AGACCAACTG ATTCGTCTAG GAGAAGTGGC TAAGAAATAT CATGTGCCAC TAGTTAAAGT 300
 GACAGGTTCA CAAAGTGTGG GTTTGTATGG AGTTAAAAAA GAAGATTACC AATATATG 360

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(2) INFORMATION FOR SEQ ID NO: 2943:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 400 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2943:

ACCTGGAAAT	GTATGTGCCA	TCTCTTAAAG	CCAATCAGTA	TCTTGAATAC	CTTTCGTTC	60
AACATGCAA	TAATTAATCC	CTGCGGCAAA	GTAGTCCATG	ATTGTGACTT	CGTACGAATG	120
CCACCACCTA	CTTCAATATC	TTTGSTTGT	AATCTCCTCA	ATGACTTAAAT	ATAATCAAAAC	180
TCTCGGCAT	GCTGTGCCTT	AGCACTCATC	AAGTCGACGA	TATGAATACG	ATTCACACAT	240
TCAAATTGAC	TATAGTAAGC	AATACTTTCT	TCAGCCGAGC	GTGGACATTT	TTTCTTCACT	300
ATCATATTTA	CCCTCTGTTA	ACCTCACACT	TGTTGACCCA	ATCAAAATCAA	TCGTGGGGCC	360
ATAATTCAAT	CATTThATAA	ATCCCCCTTG	TATTGGCCTG			400

(2) INFORMATION FOR SEQ ID NO: 2944:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 400 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2944:

AACAAAAGGG	GTCATCGTC	AATCGTTTCT	TGAATAGTGT	TGAAAAAATC	GGAATAAAT	60
TGCCAGATCC	TAGGTCCTTA	TTCTTTTAA	TGTGTGTGGG	CTTAGCCATT	ATGACATGGG	120
TTATCTCATT	ATTAAATGTA	TCTGTTAAGC	ATCCAGGTAC	GCATCAAAACC	ATTATATTA	180
AAAATATAAT	TAGCCATGAT	GGATTACGA	TGATAATGAA	TGATACGATT	AAAAATTCT	240
CAGAGTTC	AGCATTAGGC	TTAGTACTAG	CAGTGATGAT	TGGTATTGGT	GTTGCAGAGA	300
AAACAGGATA	CTTCGATAAG	TTAATGATTT	CTGTTGTGAA	TCGCGCACCA	CGTTTCTAAA	360
TTTACCGCTA	TAATATTAAT	GGGnATTITA	GGGAGTCAGA			400

(2) INFORMATION FOR SEQ ID NO: 2945:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 400 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2945:

5 ATTTTACAAG TAACGGTGCA TCACCAGATT CTAATTTAAT GTCATGCTCA GCAGCATTTT 60
 GATAACCCAA CTTTTC AAG TAGTCAAAAC AATGGTCTAC AACCAACGTA CTATACTCTT 120
 GTGCTTTGGC CGCTCTTCTA CTGCTTGAAC CAAGCCACGA CCTAATTTTT GTCCACGTAA 180
 10 TTCAGGATGA ACTGATAAAG AGGCAATCGC CAAACCATAA TACGTCCTAT CATCACTATT 240
 AATTTCTACT TCAAAATAA AAACGTGTCC AACGACATCG TTATTTTCAT TTTTCGTAT 300
 TACTTCTAAT TCAAAATTAT AGCAAGGAGA TTTTCTTAAA TGGTTTACTT TCGGCACGTG 360
 15 CCTGGCCAAAC TCGTTTTCAG GATTATCATC CAACTTTTCC 400

(2) INFORMATION FOR SEQ ID NO: 2946:

(i) SEQUENCE CHARACTERISTICS:

20 (A) LENGTH: 400 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2946:

25 GGAAATAATT ACTTGAGCTA GATAAGTTGA CAGCTGTGCA ATTATTTTCA GCAGCTAATT 60
 30 GTAAAATTCG CTCTAATCTT GCTGATGAAT GTTCAGGCCC TTGACCTCA TATGCATGAG 120
 GTAAGAATAA TGTTAATCCT GAACGTTCTC CCCATTTTGA GCGAGAACTG AATAAGAAAGT 180
 TGCAAAAAT CATTTGTGAC ATATTGGCA AAATCACCAT ATTGTGCTTC CCAATATTG 240
 35 AAGCTTTTTT TGTTTTCAC ATTATAGCCG TATTCAAAAC CAACTACTGC TGCTTCTGAA 300
 GCGGAGAATT GTGTATATCA AATGTCGCTT TTtGAnCAGG AGCATGATGT AAAGGTGTAT 360
 40 ATGTTnCACc nGTTTGCTCA TCATGTnACA CGGCAGCCGT 400

(2) INFORMATION FOR SEQ ID NO: 2947:

(i) SEQUENCE CHARACTERISTICS:

45 (A) LENGTH: 400 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2947:

50 AAGTGGCATA AAAAAATCAC ATGACGATAC ATTGTCGTCA TATGACTTTA AATATTATTC 60

5 TTCAATTGTG TCACCGAATT TTAATACATC TTCCACTTTT TCAATTCTAT TTTTGGAAAT 180
 TTGTGAAATG TGAAGCAACG CATCTTTACC TGGGAATAGG CCTACAAACG CACCGTATTT 240
 TTCAATACGT TTAACAGTGG CTTGGATAAG TTTGACCTAC TTCGCTTCA CGTGTAATTT 300
 CCTCAATGAT TTCACGAGCA CGATTTATCA TAGCTTGATC AACAGCACCC ATAAAGATAG 360
 10 TACCATCCTG GnCCATATCh AATTAAACAC ChGnTCCTC 400

(2) INFORMATION FOR SEQ ID NO: 2948:

15 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 400 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

20 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2948:

TTTTCAAGT TTTGCTGAAG GCTTTACACA AGGCTATTTA ACAATGGATG CCATTGCAGC 60
 25 AATTGCTTTT TCAATGATTG TTGTTAATGC AGTAAACTA ACAGGCATTA CTAATAACAA 120
 TCAATATTC AAACAAACTT TGACTGCTGG TTTAATTGCA GCCGTAGCTT TAATTTTCAT 180
 ATATATTCA TTAGGTTATA TTGTAATCA TATGCCAGTA AGTGACATGA CGTTAGATCA 240
 30 ATTGAAATCC AAAGATCGAA ACATTGGGAC ATATTATTA ACGACAATGG CTTCAACAGG 300
 ATTTGGTCAT CCGGAAAATA TTATTGGGCA TCATTGTGGC GCTGGCATGC TAACTACAGC 360
 ATGCGGGCTA TGGTGCAATT CCTGAATATT CCATAGATCG 400

35 (2) INFORMATION FOR SEQ ID NO: 2949:

40 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 400 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

45 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2949:

CATGGCTTCA GATTGTTTGA ATTGAATGGA CAATTTGGn TTCTGTCCA AATTCTTACA 60
 AAATCTTCTA CCGATAAACT ATCAAGTTCA ACTCTAATG GAAAAACGAC CTTGCAATTC 120
 50 TGGTATCAAG TCATCGGCT TAGATACATG GAAAGCTCCA GCACCTATAA ACAGCATATG 180
 TTCAGTATTC ACAGTACCAT ATTTGGTTTG AATAACGCTA CCTTCAAGTA TAGGTAATAA 240
 ATCTCTTTGA ACACCTTGTC TTGAGACATC TTGACCACTA TTATGATTAT TCGTGGCAAC 300

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GTIAGCGCTT TCTTGATCAN TTAGTTCATC CGCATAACTA

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(2) INFORMATION FOR SEQ ID NO: 2950:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 400 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2950:

TTGACTTTGT AACTAACTA CTCCTCGAC CGACTCACT GTTAAATGT TTCAGATGGT 60
 TTAACCTTAA ATACTACGTA TAAATCACCA GCAGTCCTC CATTACGCC TGGAGAGCCT 120
 TCACCAGCTA ATCTAATTG TTGTTCAATG TCGACACCTT CAGGTACTTT CACTTCTAAT 180
 TTAAGTGTTT TATTTTCAGT ACCTTTTCCG TGACATGTTG GACAAGCTTC TTCAAATCTT 240
 TGACCCTTC CATTACATTT AGGACAACT TGTTTCAGTAC GAACCTTACC TAAAAATTGT 300
 TTTTGTCTTA CAGCTACATG ACCAGCGCCA TTACAGTAAC TACAAGTCTT TTTACTGTG 360
 CCAGGCTTTG CACCATCACC ATGACATGTT TCGCATGThA 400

(2) INFORMATION FOR SEQ ID NO: 2951:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 400 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2951:

CAATGATTTT AAAAGATGCA ATAAAACCA ACTTAGTACA ATCAATTGAA GGGACACCTG 60
 CATTAGTTCA TGGTGACCA TTTGCGAATA TCGCACAGG TTGTAACCA ATTTTAGCAA 120
 CTGAAACAGC ACGTGATTTA GCTGATATCG TTGTAACGGA AGCTGGATTG GGTTCAGACT 180
 TAGGCGCTGA AAAATTCATG GACATTAAAG CGCGTGAACA GGATTGATC CGCAGCTGT 240
 CGTTGTTGTT GCGACAATC GTGCGTTAAA AATGCATGGT GGTGTAGCGA AAGATAATTT 300
 AAAAGAAGAA AATGTAGAAG CAGTAAAAAG CAGGAATGGT TAATTTAGAG CGTCATGTTA 360
 ATAATATTAA CAATCCGTG TAGACCGGT TGTGCCATA 400

(2) INFORMATION FOR SEQ ID NO: 2952:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 400 base pairs

(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

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(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2952:

TCAGTAGCA AAAGAAACAG GTGCTTCAGT TATCGGTATT GATATTGGTC CACAAGCCGT 60
 10 TGACCTAGGG CGCAGAATCG TTAACGTCTT AGCACCAAT GAAGATATAA CAATTACGGA 120
 TCAAAAGGTA TCTGAACCTA AAGATATCAA AGATGTGACG CATATCATAT TCAGCCGACA 180
 ATTCTTTAA AGTACAGCAT TTTAGAAGAA TTATATGATT TAACAAATGA AAATGTCCGT 240
 15 AGTIGCAATG CGCTTTGGTG ATGGCATCAA AGCAATATTT AATTATCCGA AGAAACAGCG 300
 GAAGATAAGT GGGCCATGTG TGAATAACA TATGAGACCA CAGCAAATTT TTGATATAGC 360
 ACTTnATnAA AnAGCCGGCT ATAAAGTnGG TATTACGGAT 400

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(2) INFORMATION FOR SEQ ID NO: 2953:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 400 base pairs
 (B) TYPE: nucleic acid
 25 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

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(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2953:

CGCAATTAC AATAACATTA AATAATTTTT GGTCTCATAT TTCAAAAAA CATACTGITA 60
 TTATCCCATG GgnTTAAAAA TATCATTAGT ATATAAACGA AACACTTAC GATAAATGAT 120
 35 ATCTGCAAGC CAAGCTGTGA CAAATGGTAC AACAAAGAAC GCTACTACAA TTAGTAAGAC 180
 ACTCAACCAA GCAGAATCAA CCTCCATAAA TTAAATGCA TTAATCCGTC CTACCATTC 240
 TATAAAACCA AATCCAGCTG ACTCTTCGT TCCATGAATA CTAATAATG CTGATACCAA 300
 40 ACCTGATACA ATGGCTGTG TanGGGCGGG GngCATAAGA ATTGGATATT TCACCATATT 360
 AGGTATCATC ATTITAACGC CTCAAAGAA GACCGGATAA 400

45

(2) INFORMATION FOR SEQ ID NO: 2954:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 400 base pairs
 (B) TYPE: nucleic acid
 50 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

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(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2954:

AACACTTTAA TGGAGATTTA GCAGGCACTG TTACACTGAC AGCAGGTTTA GGTGGTATGG 120
 GTGGTGGCA ACCGTTAGCA ATTACTATGA ATCATGGGGT AGCAATTGCG GTGGATGTTG 180
 5 ATGAAACACG TGTGATAAG CGAATTGATA CGAAATACTG TGATGTTAAA ACAGCTGATT 240
 TAGATGAAGC ATTTAAATTA GCAGAAGAGG CGAAAGAACG TGGGAGAAGG ATTATCAATC 300
 10 GGGTTAATIT GAAATGCTG TAGACATCCC ATCCAAGCGG ATTCTAGGAA AAAGGGTTTT 360
 AAAATTGGAC ATTAATTACT GgCCCAAAAC CAAGTGCCCC 400

(2) INFORMATION FOR SEQ ID NO: 2955:

15 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 400 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

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(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2955:

TTCAGAATAC GAGCAATGTC AGTTGCAGTG TTTAATAAAT TTGTTCCGT ATTTTGTAGG 60
 25 CATCTTCTAA AGTGCTAGGT GAAGAGATTA TAGAATAGGC ACTATCAATA CCGAAATCGT 120
 AAACATGTTG ATAATTTTCG CCTAGACTGC CACAAATCGC GATGACAGGA ATATGATATT 180
 30 GTTTTCGAGC TAACGCAACG CCTACGGGTG TTTTACCAA GATGGTCTGA TAATCCATGC 240
 GTCCTTCTCC AGTAATAACG AGGTCGTCAT CTTTAATTCT TTGATGAAA TCTGTAATGT 300
 CAAAGACGAC ATCAATACCT TTTGTTAAAG TTGCTCACA AAACGnTAAT AATGCTGCGG 360
 35 CCATACCGnC AGTGCACAG AACCTGGTAT TTGGTnACG 400

(2) INFORMATION FOR SEQ ID NO: 2956:

40 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 400 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

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(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2956:

AATACGTCCT TTATATAATG TTAATAACCA GTTAAACAAT TTCACACCAG TTGGAATACC 60
 50 AATCAGCATT GTTGAATAG AGAAGAATGA GTTGATTAAC GCACATTAC CCATTGTGAA 120
 GAAATGGTGA ACCCAAATA AGAACTAAG GAACGCGATA CCGCAGTTG CCCATACCAT 180
 ACTTTGATGT CGAATAAAC GCTTACGAGC GAATGTCGGG GATAATTCT GAGTAAATAC 240

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CCAAAGCATT GGCATACCG CCATGTGGCA CTGTGGAAGA ATGCTGTGTC CAATATTCGG 360
 nTCATTGGTn CATTAAATGGC TAACGCTAAC GGTTTAAAGG 400
 5 (2) INFORMATION FOR SEQ ID NO: 2957:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 394 base pairs
 (B) TYPE: nucleic acid
 10 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2957:
 15 TAGTAATTAA TACGATGTCA GCACCTACTG ATTTTGCTTT GTCTGCTAAT AATCTTAAAT 60
 GTTCCGTGGA CCTGAACCAG AGATAATTAC AAATACATCA TTCGACTTAA TCGCAGGTGT 120
 20 CGTTGATTCT CCAACAACAT GTGCCGTGTT GCGAGCTGA TTTAAGCGCA TTGCAAAACT 180
 ATTCGCACAG AATCCTGGAA CGTCTTTGC CAGCTACAAA TATATGTTCA GCATGTAGTA 240
 25 TTTTGGGATG CAAAAGTTGG AAAACTCCAT CCGnTTCAAC ATGTGACAAA GTCATCTTTG 300
 AATTCACTCTA GAnTTAATTG ATAGTCACTA AnTTTAGCCA TATTACTTAC CTTCGGTTGC 360
 CAGCGCGACC ATGTGTTTCG AGCTTCTTAC TGGG 394
 (2) INFORMATION FOR SEQ ID NO: 2958:
 30 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 400 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 35 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2958:
 40 AATTATTCTA CCTATAATTA AAAATGCTGG CAAAGGTGTA ATGATGATGA GTAATGAACC 60
 TACAACATTT AATATCAATC CTACATAAGT AATTTTGAAG CGACCAAAAT TATCAGCAAC 120
 ATCACCAGCA CCTACGATAA ACAAAACGAG AAATAAGGCA GATAAGCTAA CAGCGATTAT 180
 45 TTATCGTTCC AACGTCACTA CTATATGTTG ATTGTAATGG GACAACAAGA TTAACAAGTG 240
 ACTGCGCGAA TAGCCAAAAG GTAATAACCC CTA AAAACGAT ACCCAAAAGC AATCGGTTGT 300
 50 TCACCTCTTA AATGTTTTG ATGTGTCnT GGATTAGGAT AAGCCTCCTA TGTTTAGGAA 360
 AAACAATTTT TAATATGGTA TATTAAGGAN ACAATTCCTT 400
 (2) INFORMATION FOR SEQ ID NO: 2959:
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(A) LENGTH: 400 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

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(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2959:

CTTCCTTCTC AACATCAAAG AACATATGGT TTTGTTTCAA ATATTCTTTT ACTAGCGCGA 60
 TATGTTCTGC TGATCTACCA GTTAACITCA TATATTAAAG AGATTCATCA TCAACTGGGA 120
 AGAATCCGCA AGTTGTCTCA TACTCTGGTG CCATGTTTGC AATTGTAGCA CGTCTGCTA 180
 GTGGTAAATG TTGTACACCT GGACCAAGA ACTCCACAAA TTACCAACA ACACCTTTTT 240
 TACGTGGCTC TTGAGTTACT CTTAACGCTA AATCAGTTGC TGTGCGCCT TGTGGTAATG 300
 AATTACTAGT TCGTACACCA TTAACCTCTG GAATTGGGGA AATAGGAGGG TTGTCCAGGC 360
 ATTCCAGCTT CAGTTTCAAT ACCACCAACA nCCCTCCTAG 400

(2) INFORMATION FOR SEQ ID NO: 2960:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 380 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

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(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2960:

ACGTCAAATG TAATCACAAT CGGAAAGTAT CGTGACAATG CATATATAAC AGGGAGGGTT 60
 TAAATATGAG TTAATAAGGG GATTTTTAGA TTTAGGTGCA CTGTTTATTT TACCGGTGTG 120
 CATATCTTGT CTGGCCTAT TCTTTAGGCA GAAAATTGGA GCGGCATTTA GGTCTGTTTT 180
 AACAAATAGT GTGGCTTTTG TAGGGATTTT CTTAGTCATC GATTATTAG TTAATAATTT 240
 AGGGCCAGCA GCACAAGCGA TGGTTAAAAA TTAGGCCTC AnTCTGAATG TGGATTGATG 300
 TAGGTTGGCC AGCAACATCA TCTATCGCTT GGGCATCATC TGnCGCnCC ATTTTATTAT 360
 TCCACTCGGG ATTCATAGTT 380

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(2) INFORMATION FOR SEQ ID NO: 2961:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 358 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

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GGCCATTGGT CGAACTTACG AGAATCATT GTTAAAAGCA ATTCGATCAC TTGAGTATGG 60
 5 TGTGCATCAC TTAGGATTAC CAATGGTGA AAGCTCGAT CTTGATTATA TTAAGAAGCG 120
 TATTTACAC CAAGATGATG GACGATTATT TTTATCGGC GAACAATTAG AAGAGGCACA 180
 ACAGTAGAAG AAATTCTATA TATGACTCAG ATTGATTACT TCTTCTTACA CAAGTTCCAA 240
 10 AACATTATTG ATATTGAGCA TCAATTAAAA GAGCATCAAG GTGATTAGA ATATCTTAA 300
 TATGCAAAAG ATTATGGnTT TAGTGTATAA ACAATAGCGC ATCGCTTAA TATGACGG 358

(2) INFORMATION FOR SEQ ID NO: 2962:

15 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 364 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

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(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2962:

TTTGGGCATC ATTAGGAAAA TTCTTTGAGC AACTTTAGTG TCTACTGGGT AATACAATTT 60
 25 TATCACCATG TTTTCTAAT AAATCTTTG CGAATCGATT TTATCTTCTT CTAATAATGA 120
 AATACCAATT TCTTTACCTT GCGCTTTTAA GAAAGTATAA GCCATACCTC CGCCGATGAT 180
 30 AATTTTATCA GCTATGTTAA CTAAGTTTTT GATGACATTA ATTTTGTICAG ATACTTTTGTn 240
 GnCACCATAA ATAGCAACAA CTGGTTTATG TGGATCGTTA ACTACGCCGC CAATAAACTT 300
 AATTTCTTTA TCCATTAGA ATCCAGCTGC AGTTTCTAAA TGTGTAGAAA TACCAACATT 360
 35 ATn 364

(2) INFORMATION FOR SEQ ID NO: 2963:

40 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 372 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

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(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2963:

GTGATTCTT TGAAGAGATA TAAAAAATTC AAAGAAATGG GATCTAGGAT TCCTAAAGGT 60
 50 GTCTACTTTG TTGGACCTCC AGGTACTGTT AGAAACATTA CTTGCTAGAG CGGTTGCAGG 120
 TGAAGCTGGC GCACCATCTT TCTCTATTAG TGGTTCAGAC TTTGTAGAGA TGTTTGTTGG 180
 TGTGTGTGCG AGCCGTGTTT GTGACTTATT CGATAATGCT AAGAAAAAGC CGCCTTGTAT 240

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TCATGATGAA CGTGGAAACAA ACCCTAAACC AnTATTAGTT GAAAGGATGG TTnCGGTGG 360
 AAAATGAAGG TG 372

(2) INFORMATION FOR SEQ ID NO: 2964:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 382 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2964:

TTAGCAGAAC GCCCACAAAA CCTATCTCTT GCTGTAAAAG AATTGTGAA nCTGCTGGCT 60
 TAAAACGTGT TGGCATAATT GCAGCTTTAG GAGCTACAGT TATGTTAGGT TTAAGTACAA 120
 TTAAAAAATT ATGCCGTAAA TAGAGCAAGA CATAAACAAAT AATTTAGGAG TCTGGAACAA 180
 TAATCAATGT TCTAGGCTCC TAAATGTTAT ATTGGCAGTT CTGAAACATT TATAAATCTT 240
 TGATTATGAA CTCACAACAG TGCTCTATGC TTTTATAGAT TTTAATAAAT TAGCCATTTC 300
 AATTGCACCTT ACTGCTGCTT CACACCCTTT ATTGCCAGCT TTCGnACCTG CnCTTCCAC 360
 AGCTGGGCAA TACTGCCAGC CG 382

(2) INFORMATION FOR SEQ ID NO: 2965:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 400 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2965:

GGGAATCATA CAATCATTAC CAATAAACAT GTTACTTATC ACATGAAAGT CGGTGATGAA 60
 ATCAAAGCAC ATCTTAATGG TTTTATAAT AACGTTGGTG GACTTTATAA AGTTACTAAG 120
 ATTGTAGATT ATCTGGTAA AGAAGATATT GCGTCGTAC AAGTTGAAGA AAAATCAAG 180
 CAACCAAAAG GTAGAAAATT CAAAGATTTC ACTAGCAAAAT TTAATATAGC ATCAGAAGCT 240
 AAAGAAAATG AACCTATATC AGTCATTGGT TATCCAAATC CTAATGGAAA TAACTACAA 300
 ATGTATGAAT CAACTGGTAA AGTACTATCA GTGAATGGAA ATATAGTGAC ATCTGATGCG 360
 GTTGTCACAC CTGGCAGCTC TGTTACCT ATATTAAATA 400

(2) INFORMATION FOR SEQ ID NO: 2966:

(A) LENGTH: 400 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

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(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2966:

10 TGGGGATTCA CAGGCTAATA CATTGACTT TATTAGCTGG TGGCGGTAAC GGCCTGAAC 60
 TTAAATGCG ATTCAAAGTG CTGCAATTAT AAGTGCATTC CCAATTCCTCT TTGTCGTCAT 120
 ACTCATGATG GTAAAGTTTCT ACAAGGATGC GAACCAGGAA CGTAAATTCCT TAGGTTTAAC 180
 15 ATTGACTCCG AATAAACATC GCTTACAAGA ATATATCAAG AGTCAACAAG AAGTTATGAA 240
 TCTGACATTC TTGAAAAGCG TCAGTCACGT GAAATATAGA GAAAAAAGAT AACTAATAAA 300
 GTTTAGTTAA GTATTTTAAT AACAAGTAGT ATGTCATTCT AGTAGCTAGA ACGGThATAC 360
 20 TACTTGTnTG TTTTGTGGA AATTGAGTAT TCAAAAGGTT 400

(2) INFORMATION FOR SEQ ID NO: 2967:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 387 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

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(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2967:

ACGAGGAATT AGTGAAGTAC AATATTATCG GTGGTTTGA TTTAGGTGTT GTTTCAGACG 60
 35 ACTTTAAAAA TCACATGTTA ATAGCTGTAA CTGAATTAAG AACAAAAGAT GAAATCGATA 120
 CATTGTAGA AAAGGCTGGT GAGTTAAATG ACTAGTAAAT CAAGTCCATT AATTTTIGAA 180
 AGATCTCGTG AAGGCAGATA TGCATATTCA TTACCAAAAA GTGATATTAA AACAAATCTT 240
 40 GTTGAGTCAT TGTTAGATGA TAAATTTATT CGTAAAAACA AAGCGGAGTT TCCTGnAGTT 300
 GCTGGAAC TA GACTThTAC GTCAATTAAT CTGGACCTTT CCAAAATAAA AATTCCGGnG 360
 GTAGACACCG GGTTTAACCC ATGGGGT 387

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(2) INFORMATION FOR SEQ ID NO: 2968:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 806 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

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AACAAAGTCA AGTGAGTCAA CATCAGAAAG TGCCTCAACA TCACTCAGTG ACTCAACAAG 60
 TACAAGTAAC TCAGGATCAG CAAGTACGTC AACATCGeTC AgTAACTCAG CAAGCGCAAG 120
 5 TGAATCCGAT TTGTCGTCAA CATCTTTAAG TGATTCAACA TCTGCGTCAA TGCAAAGCAG 180
 TGAATCCGAT TCACAAAGCA CATCAGCATC ATTAAGTGAT TCGCTAAGTA CATCAACTTC 240
 10 AAACCGCATG TCGACCATG CAAGTTTATC TACATCGGTA AGTACATCAG AGTCTGGCTC 300
 AACATCAGAA AGTACAAGTG AATCCGATTG AACATCAACA TCATTAAAGCG ATTCACAAAG 360
 CACATCAAGA AGTACAAGTG CATCAGGATC AGCAAGTACA TCAACATCAA CAAGTGACTC 420
 15 TCGTAGTACA TCAGCTTCAA CTAGTACTTC GATGCGTACA AGTACTAGTG ATTCACAAAG 480
 TATGTCGCTT TCGACAAGTA CATCAACAAG TATGAGTGAT TCAACGTCAT TATCTGATAG 540
 TGTGTAGTAT TCAACATCAG ACTCAACAAG TCGGAGTACA TCTGGTTCGA TGAGTGIGTC 600
 20 TATATCGTTA AGTGATTGCA CAAGTACATC AACATCGGCT AGTGAAGTAA TGAGCGCAAG 660
 CATATCTGAT TCACAAAGTA TGTGAGAATC TGTAATGAT TCAGAAAGTG TAAGTGAATC 720
 25 TAATTCTGAA AGTGACTCTA AATCGATGAG TGGCTCAACA AGTGTCAGTG ATTCTGGCTC 780
 ATTGAGCGTC TCAACGTCAT TAAGAA 806

(2) INFORMATION FOR SEQ ID NO: 2969:

30 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 351 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

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(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2969:

ACCATCTACT CCGTTAATAG TTACTGTT ATCATTGGTG TTTGGACTTT CAGCCCTTGC 60
 40 ATCTAAAAAT ATAAGCTGAT TAAATCTGT TATTACTTCT TCCTTGTAAAC CATCTATGAT 120
 TTTTACAAAA GATTGCATTA ATTAGTCAA CTCCCATAT AATTATTGTC ATTTGCTCTA 180
 45 TGCCCACTTT GTTTTGACAA TATTTTCT AAACCTCTAA TTGCATCATT AGAACCTAAG 240
 GATTATCCTG AGAAGAAACA GTTGAATCA ACGCATCTGT TAATThATTn CTTTATCAC 300
 TTAACATAAC AATTGGTTC AACAAATTIn AACTGTAGAA GTATCATTAT T 351

50 (2) INFORMATION FOR SEQ ID NO: 2970:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 359 base pairs
 (B) TYPE: nucleic acid
 55 (C) STRANDEDNESS: double

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2970:

AGTGCCTGAT GAATTTTGAC CACAAATTCA AATGTATCAG GCGTTTCTTT TATCCATTTC 60
 AATATATTC TTTCCGGTTG TATCGCATAG TATGTCGCAT CTAATTCGAC AACCGGAAAA 120
 TGTCACGCAT ATGTTTTTAAG TTTATCGGTT TGGCGTTCTA AATCTTCATA TAATGAATAG 180
 TGATCACCCC AACCTGTTAA TCGATGTTT ATCATATATA TCACCAATGT CATCATACCA 240
 TATAACTTTT ATCATAATCA TTTCAGCGAA CTTTAGTTTG ATGTTTTTGC TTGATTAAAA 300
 TCTTTTCGGC GAnCCTCAGC TTGATGTTTT TCGTTGATTA AATGGTAAAT AGnnACGCA 359

(2) INFORMATION FOR SEQ ID NO: 2971:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 400 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2971:

CAGACGGTCA AGAATCTTAT ACTTATCAAA ATTATACTG TGAAGCGAGT CTATTGGCTA 60
 AAAGACTCAA GGCTTATCAA CAATCTCGTG TTGGGCTATA CATAGATAAT TCGATTCAAT 120
 CGATCATTTT AATACATGCA TGTGTGTTGG CAAATATTGA AATTGCGATG ATTAATACAA 180
 GGTTGACACC TAATGAGATG ACGAATCAGA TGAAGTCAAT CGATGTACAA TTGATTTTTT 240
 GTACCTTGCC ACTGGAATTA CAGGGTTTCA AATTGTATCG CTGGGTGATA TTGAATTCGC 300
 TGGAGGGATA TTACAnCGAn CAGTTGTTGG GCAACACAA TGGTATCCAT TTGAACCATC 360
 GGATGnAACT TTGTGCCGAA GGTCGCCTCC ACATnTAATG 400

(2) INFORMATION FOR SEQ ID NO: 2972:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 392 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2972:

TCAACCGCTT TACAGCCAAC CGGCGAGCTT GACATGGATC GCCTGGCCCA TGCCCCAGCC 60
 TTGGCGCCAT CATTATTAAT TGCTGCAGTT ACGGTATCTT TAATTGCGTT AAATAAACCT 120

AAATCACCGA AATGTTATTC GCTTAACGTT TTGTTGTGT TATTTTAAAA TAAATTTGAT 240
 GCAATTAGTT TGTTCATCG CACAACATCT TATAATGTAC TTAACGTGAT TTAAAGAGA 300
 5 AAAGAAATAC AGTTAGGCAT TCAAACTGT ATTTAACACA ATTAAGITGC CTGAATTCGT 360
 ATTAAAGTCT TATTGAACCT TTTTnAGATA An 392

(2) INFORMATION FOR SEQ ID NO: 2973:

10 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 400 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 15 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2973:

20 ATTGCAATGA TAGCAATCG AATGACACCT GCTAAAATAA ACGTTGTGCC ATCCGTCGCA 60
 TTGTACACCA GAATCACAAT GTCACCAAGC GTAGGTGCTC CTATAAATGA TCCAACGGCA 120
 ACAACACCTA TCGCAACAAC CAAGGCAATA CGAATGCCAC CGATAATAAC CGAAACAGAT 180
 25 AACGGTAATT CAATCATTCG TAGCACTTGA TTGCGTGTC TCCCATACC TTTGCCAGCA 240
 TCCTTAATAT TCGCATCAAC ACTAGCTATA CCAGTATAAG TGTTTTTATA ATTGGAAGTA 300
 ACGCATATAA AAACACTGTT AAACACTGTT TCTGAnCTAG CCTGACTACA TFAATAGTn 360
 30 ACATTGCATG ACTGGACTGn TGGATATATT GCATGGATn 400

(2) INFORMATION FOR SEQ ID NO: 2974:

35 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 400 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2974:

GTATCTTTTA GGAATGCAA CTTTAAATCC TTTAATATCT TTACCAATTT CAGATGTAAA 60
 45 GTCTACATCA TCAACTGGTG CACTGTAGA GTCATTAAAC TCGCACCAG AAATAGCTTC 120
 TAATACGATT GCATTATCTT TTACATTTG AGTCAATGGA CCAATTTGGT CTAATGAAGA 180
 50 TGCAAAAGCA ACTAATCCAA ATCGAGATAC ACGACCGTAT GTTGGTTTCA TACGCACAAC 240
 GCCACAATAT GGCAGCCGGT TGCTAATTG AACCACTGT GTCTGGAACC TAAGCTAAAT 300
 GGTTACTAAGC CAGCTGCAAC TGCTGCTGCA GATTCCACCT GAnGGAACCA CCTGGGCACG 360

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(2) INFORMATION FOR SEQ ID NO: 2975:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 361 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2975:

GAGATCGCGG	GTTCGATTCC	CGTCGAGACC	GTACAAATGC	CTATCCAAGA	GATAGTTTGG	60
TnTTGCGTIT	AATATTATAT	TAATAAAAGA	TATATGGACG	AATGATAATC	ATATTGATTI	120
ATCTGTTTGT	CCATTTTCTT	TAAAATGTAT	GAACCTCAAG	TAACTTAGTG	GTTGGATATG	180
AAAGATAAAC	GtngACAATA	AAATCTTIAT	TAGACGTACA	AACATATGCT	ACTGTCAACA	240
TATTTCTTCG	TTGTGATATG	CCACCAAGTCC	TCCATAACAT	CAATTGTTAA	AGTAACGAAT	300
AACGAATAAT	GATATTTnAT	TTCTGAGCCA	TGACGTGCCA	CTAGAAGTTG	CCCATTATCC	360
T						361

(2) INFORMATION FOR SEQ ID NO: 2976:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 356 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2976:

TGCTGCTTCT	GAAGCGGAGT	AATTGTGTAT	ATCAAATGTC	GCTTTTIGAT	CAGGAACATG	60
ATGTAAGAGT	GTATATGTTT	CACCTGTTTG	CTCATCATGT	AACACGGCAT	GCCTATGACT	120
GAATGTACCA	CGTTCACAT	CTTGACCAGT	TAAGCGAATC	GGTGTACCAT	CTTGTAATAA	180
TGTCGCAAA	GCAAGTnGTT	CTGCTTGTGC	CCAATCAACT	AAACCATCTT	CTTTATTAAA	240
CGGCTCATGA	CGCTTCTCAA	GAACTTTGTT	TAACTTTTnT	CAAAATGTTA	AAGCCATCCG	300
GATATGTTAA	CAATGCATCA	TTATTCTTTT	CAAGTGATCC	AAAAGTAAAG	GnTTGT	356

(2) INFORMATION FOR SEQ ID NO: 2977:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 371 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2977:

CTTTAGAGCG ACACCTAGTC ACTGCAGCAA GCTATTCTT TATTGCTAT GCTATATATC 60
 5 GTTAATACTT AGACCTATTG CTGGTAGATT GATGGATGAT AAAAATGAAA ATATTATTGT 120
 CTACCCAGCA TTTATCATGC TTTTCCTTTC ATTGTATATG TTAATTTCAA GCTATCAAAG 180
 CTGGTTAATA TTACTTGCTG GTGCTTGCCT AGGTTTAGGG TATGGAAAT TATCATCTGC 240
 10 AATGCAATCT ATTGCGATAA AAGTCTCACC CCCGATTAAA TATGGTATCG CGACATCTAC 300
 TTTTACGTT GGTCTAGATG CCAGGTGTCG GCTTCGGTCC AGCATTCCTT GGGTTATTA 360
 15 CGCAGnGTTT T 371

(2) INFORMATION FOR SEQ ID NO: 2978:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 365 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2978:

TTGTAATTC ATGATTACAC CTCATTGTT CTGTGTGTTA AAACCAATA TTTAATTGTC 60
 30 TGCCTCAAT AATTGTTGT TTAAGTTGCT CAATATGATT TGATTGGAAT TCTTCCAATA 120
 ATGCTTTTGC TATTTCAAAT GCTACGACAT GTTCGACAG GATACTTGCT GCAGGAACAG 180
 CACAACATC AGAACGTTCA ATGTGTGCTT TAAAGTCTTC TTTAGTATTA ATGTCTACTG 240
 35 AATTTAATGG nTTATATAAC GTTGGAAATG GntTCATTAC ACCATTACGA TAATTGGCAT 300
 CCATTGACAT ACCGCTCTCA ACCACCTAAG TGATTAGAnC ACGATAATAC CAATTCACCTA 360
 TATAT 365

(2) INFORMATION FOR SEQ ID NO: 2979:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 400 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2979:

TGATTATATA AATCTAACCA GCCAAGTTTC GTCTGCGGTG AGACATTGAC ATTAATTGCT 60
 CGAGATAATG ATTTAACAAc ATGTGTGGCA TGTGATTAT TAACGATGAC AATATCATGT 120

TGGCGATGGG TAACATTGTT AACATTGCTT CATTAAAAAC GATATCGAAT TGATTGTCAT 240
 CAAAGGGCAA TTTAACAGCA TTCGCTTGTT GAACTTGAAT ATATGATTCA nGACCTGCTG 300
 5 CGGAAATGTT TTCCGTGCTT TTTCTAAGCC TTCnTATTAT ATCAACGCCT GAnGTGACAC 360
 CAnAGTGTGA GCCAGATAAA TAGAGGTGTG CACAGATACA 400

(2) INFORMATION FOR SEQ ID NO: 2980:

10 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 384 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 15 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2980:

20 TTTCTGCTTT TGATAATCTT TCATCAATGC AAAAGCTACA TTGACAGTC CTATAATGGA 60
 AATAATGTTT ACAATGGCCA TTAAGCCCAT AAATAAGTCT GCCGTATTCC ATACTGTTTC 120
 TGTTTTACA ACTGCACCGA CAAAGACAAG TACTACAACA AGACATCTAA AGATAAATAA 180
 25 TATTACACGG TTTGTTGATA AAAATTCAAT ATTAGATTGA CCGTAATAGT AATTACCTAC 240
 AACAGATGAA AATGCAACA GTGnAACGCT TATTGGTTAA GAAATACCT CCAGCAGAAC 300
 CTAAATGCTC CTTAAGTGCC GATTGGGTAA CTGCAACACC nTGGAGGGCG TTTATCACCA 360
 30 AATTTnCGTC CGAATATAG TAAA 384

(2) INFORMATION FOR SEQ ID NO: 2981:

35 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 380 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2981:

AATTCTAACG ATATACCCAT TTTTACAACC ACGTCTCTA AGCGCATCAT CAATACCCAT 60
 45 CGAACGCATT TGACGAGCAA ATCGACGTAC TGCTGGATCA CTGTTAAAGT CAGTCATTTT 120
 AAACATTCTT TCAATAGCAT TACCACCTAC CACATAAGCA CCATCATCAT CTCTTGGAAA 180
 TTGTAAATTT ATCTTGTGAC GGTGTATGTT TATATAATAC TCGGTTAATG CCAACTGACT 240
 50 CCTCTTCTTC AACTGTGGAG TCAACATCTT TATATTCTTC TGAATTATC TGCTTATTGC 300
 ATATGAATAA TTGnnCAATG ATTATCACGC GTTATTGTTG GAAACTGGGA TTAACGGCA 360

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(2) INFORMATION FOR SEQ ID NO: 2982:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 389 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2982:

CCTCAACCGC	TTTACAGCCA	ACCGGCGAGC	GCTGhACATG	GATCGCCTGG	CCCATGCCCA	60
CGCCTTGGGC	hCATCATTAT	TAATTGCTGC	AGTTACGGTA	TCCTTAAATTG	CGTTAAATAA	120
ACCTTCCATT	GAARACACTC	CTTAAATTTT	AAATTTGAAG	ATAACAAAAA	CGTGCGTACT	180
TTnTGAAATC	ACCGAAATGT	TATTCGCTTA	ACGTTTTGTT	GTTGTTATTT	TAAATAAAT	240
TTGTAGCAAT	TAGTTTGTTT	ATCCGCACAA	CATCTTATAA	TGTACTTAAC	TGTTATTTAA	300
AGAGAAAAGA	AATACAGTTA	GGCATTTCCA	AACTGTGATT	TTAACACAAT	TAAGTTGGCC	360
TGAATTCGGT	ATTTGAAATC	CTAATGGAA				389

(2) INFORMATION FOR SEQ ID NO: 2983:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 379 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2983:

ATATTCCTAT	GACAATGTC	AGGCAACGAT	TCCAAGGATT	AAGAAAAGAT	CAACCGGTAT	60
ACTTATGTGA	TGCCAATGGG	ATTGCTAGCT	ATAGAGCCGC	TCGTATTTTG	AAAAAGAATG	120
GATATACAGA	TATCTATATG	TTAAAAGGCG	GCTATAAAAA	ATGACTCGA	AAAATAAAGT	180
CTAAAAAATA	GTTTTGTGTA	ATTTAATATA	CGATTTAATA	AAATCTGAGT	GTTAATTGAT	240
CATCAATAAC	AATACTCAGA	TTTAAATTTT	TTAACAAAGT	CTGTTACTAT	ATTTCTCTAG	300
CTTCACTGAT	CATTAAACCT	TAGTTTCAGC	ATAATTAAAG	AAGGTCCGnC	CCATTCCAT	360
CGnGhTCCAT	TACCGCCAC					379

(2) INFORMATION FOR SEQ ID NO: 2984:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 374 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2984:

5 ATGCTGAAAA TATGGTGGCG TTTATATGAA TCAATTGTAA TCCGAACATA ATCCGGATAC 60
 ATATTTTCAT ACATTGGGAC CGAATTGAC TTCAGCATTA CAGCAAATTG ATTATTTTGT 120
 GGCTGGTATT GGCTCTGGCG GTACATTTCAC AGGTACGCAC GTTATTTAAA GCAACATCAC 180
 10 GTGCAATGTT ATGCCGTTGA GCCAGAAGGG TCCGTGTAA ATGAGAGGCC AGCTCATGCA 240
 CATGACACTG AAGTATCGGT TCTGAGAAAT GGCCGATATT TTTAGAGAGA CGCTTGTAGA 300
 TGGGnTATTT ACGATTAAAG TcNAGATGCC TTTCCGAATG TCAAAGTTTG CTATAATGAn 360
 15 GGTGTAGTAA GCAG 374

(2) INFORMATION FOR SEQ ID NO: 2985:

(i) SEQUENCE CHARACTERISTICS:

20 (A) LENGTH: 464 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2985:

GGAGCCACCA TTGGAGCAnG TTACGGTGA AAAGATACGG nAAGGTTnGT ATGACTGTAn 60
 30 GTCTTGATA GAGTAACAAA CCTAATTTGT TAACTCTAGG CCCCATATGT CGCAGTACCA 120
 TCTGCATGT TTGTTAcATT GTATGCATT GTTTTACTTG GCTTCTTgTA TGTGGGGCGA 180
 GCTCCGTATG ACACTTGACC GTTTCATGT GTTGTACGT TGTATGCATT TGTTTTGCTT 240
 35 GGCTTGTITT GTGTTGGGCG AGCGCCATAT GATACTTGGC CGTTTCATG TGTGTTACG 300
 TTATATCCGT TTGTTTTGCT TGGCTTGTTT TGTGTGGAC GAGCTCCGTA TGATACTTGG 360
 40 CCGTTTGCAT GTGTGTGTAC ATTGTATGCA TTCGTTTCGC TTGGCCTCCT GTATGTGGGA 420
 CGAGTCCGT ATGATACTTG ACCATTGCAT GGGTGGTACG TnnG 464

(2) INFORMATION FOR SEQ ID NO: 2986:

(i) SEQUENCE CHARACTERISTICS:

45 (A) LENGTH: 359 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2986:

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AACTATTATA TTAACATACA ATGTAGGGAT GTGATGCGG TGAAGITTAG GGATAAAGAT 120
 AATCGTCAAG TTAATTGAC ATTTAAAAAG GATAATGAGA TAGCAGATGG CAATCATGTG 180
 5 CTAGCTAATC CAACGTTTAA AAATCAATTG CTTTTACCA AACATAATTT ACGGGGGATT 240
 GAATTTCTCG GTGGTAAAAG GGAACGCGGG GAAAGTAGT GCTGGAAGCA GTTACACGTG 300
 AATTATATGA AGAAACAGGC GCCAAATTGA AAAATGnTTA TTACATAGCA CAATGTnCC 359

10 (2) INFORMATION FOR SEQ ID NO: 2987:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 400 base pairs
 (B) TYPE: nucleic acid
 15 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

20 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2987:

TAGAATTCCT CTAATGAATG AGCTTCTTTA GAATGATAAC CATAACGAAT TCCGTCAAAA 60
 CGAGAAAGGT TTGACGAAGC TTCGATGAT GCAATCACGT AATATGATGG AATACCAAAAT 120
 25 TTAGTATTG GCAATGATAC TTCCTCAACG ACAGCACCTA AAGATTTTAA AGTTTCTACA 180
 GCGTTTGAAG CTGCTTCTTT TACGTATCA GCTACACCTT CACCTAAGTA TTCTTTAGGT 240
 AATGCAACTT TTAATCCTTT AATATCTTTT ACCAATTTC AATGTAAAGT CTACATCATC 300
 30 AACTGGTGCA CTTGTAGAGT CATTAAACATC TGCACCAGAA ATAGCTTCTT AATACGGTTG 360
 CATTATCTTT TACAnTTCGG GTCATGGnCC CATTTTGGTC 400

35 (2) INFORMATION FOR SEQ ID NO: 2988:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 377 base pairs
 (B) TYPE: nucleic acid
 40 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2988:

ATTCAATCAT AATTATCAAT CCTTGTGTT AAATTACTAT ATAAATAGTG TACGnATTTT 60
 CGAAATTTGT GATCATAAGT TTATTCAATG CTAAACAATA AGGTTGAGAC ATAATCGTAT 120
 CTCAACCTTG AAATTATTAT ACGTTGACGT CACTAGTCAT TCAGTTTTCT TAATGCTGCT 180
 50 ACAATCTCTT TTTTAGTATC TTGTACTTCA GAAGCTTGCT TAATCACTTT TGCAGGTGTA 240
 CCAGCAACAA CTGCACCAGC TGGTACATCT TGTGTCACAA TCGnCCCACT GGCAACAATA 300

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nGATTATAAC CGTGGAG

377

(2) INFORMATION FOR SEQ ID NO: 2989:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 356 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

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(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2989:

15	CCAGnACCT GGACACGCCG GGTCTTATCA TCAATAATAG TAGCATGACA AATCTACTAT	60
	TTTTTCGCTA ATAAGTGGAT GTAATGCTAA TAATGTTGCT GTAGGGAAC AGCCAGGATT	120
	AGAAATGAGC TTGTTCCAT TGTATCAAA CGATTGCCAT TCTGAAATGC TGTAAATAGT	180
20	CATGATTCAA ATCATCTTGT GCTGCAGCA GTTCTTTGT AATATGCTTC ATATATTCAA	240
	CGnTTCTTAA TTCTAAATGC GCCAGATAAA TCGATAACAT GAATACCTTT TTCTACTAAG	300
	GGAGGGATAC ATGTTTTTACT TACGGGTGCT GGTGTGCGAA AGAAAATTAC ATCAan	356

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(2) INFORMATION FOR SEQ ID NO: 2990:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 349 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

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(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2990:

35	TCATTTTCCA AGTGAGACTC TGCTCTTGCT TTGGCTAATT TAGCTCTTTC AACATCAATT	60
	TCTCTTGCGA TTCTGCGAGT CTGAACAATG ATTGAAACTT TATCTTTTCT AACTTCAACA	120
40	AAGCCATGCG TTACAGCAAT ATATTGAGTT CCATCGTGA AATTTCACCTT TTACAAAGCC	180
	TGTTTTTTAAA GCAGCTACAG TTGGGAATAT GTCCACTCAT GACACCTATC TCACCAGCTG	240
	TTGTTTGCAAT AACAAAGAGT TCAACATTAT CACGATTGTA AACAGAACCA TTAGGAGTGA	300
45	CAATATCTAG GTTTAAATGT CCATTATCCA TTCCnCCnGA ATTGGnTGA	349

(2) INFORMATION FOR SEQ ID NO: 2991:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 363 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

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(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2991:

ATGGCCACGT TCATGCCAAT AGCTGTCGTA GTCGCATTTT CACGTTCTAG TATTGCATTT 60
 5 TTTAAATGCG ATGTGTGCTC TACATAACGG CAAATTTTAA GTTTATGAAT CAACATATCA 120
 ATTGCTTCGT TTCGAGACAT GTCGTGGATC AGTAATTATC ATAGTTTGTG GATCAAAAAC 180
 10 ATGAGAAGGT TTAATTGAGAT GTGAATGTTT CGCGGTGTTA TCTACAITGT CAACCTCTGT 240
 ATCATGTTGT GTAATATCTG TATCATGAAG TTGCGGTTGC GCTGGTGATC CTACTGCTAT 300
 AACTGGTGTA TTGCGTTTAA ATAATAGTAC AGTAGTnCAT TGTnGACAAG ACTnACCGAC 360
 15 TTA 363

(2) INFORMATION FOR SEQ ID NO: 2992:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 349 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2992:

AAGTTTATTT TAAATTCGT AATAAAAATA ATAAACTCAT CGAACGATTT AATGGTCTAG 60
 30 GTTCCATAT CAACATGAG TACATTAAAT TCAAATCGA ATCAGCTAAC GTAAAAGATC 120
 AAACAATCCC TGAATAAAAC ACCAAGCAAA TACCCTACAG TACATCATTG GCATGTATTG 180
 TGGGTTTTTC TACTTTTTGT AAATATTGAn AATTATnAGT AGTTGTTTTI TACTATTAGG 240
 35 GCAGAATGCT TTACAATAAC ATGCAAGTGT CAATTAAAGG GAGCACTTGC ATAAATAGTA 300
 TAGGnGAGTG AGTAGTCCTG GCCATTTTCCT GGAATTCCTT AATCGGCAC 349

(2) INFORMATION FOR SEQ ID NO: 2993:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 399 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2993:

TTTGTGCAAT AAGCGCTTTT TGTCGTTTG CTTTGTGTC TAATTATCTT TTCGCAACAT 60
 50 CTTTAATTGT TGTATCTGCA GTAATACCTT GAATATCAGC AACTGCTTGA TCITTAATTT 120
 GCGTAACATC ATTAGTTGTT TGTGCAITTA AGATATCTTG ATACGCTTTT TCITTAGCTT 180

TTGCTTGATT TTGAGTTGTC ACAGCTTGAT CAACATCATT TTTAGCATTG ATTAAACCGC 300
 TGTGCTGGTT GCGGCTTGAA TTGAATCTTC CAGGCTTCGC TGACTACACA TACACAGTGA 360
 5 GnGnAAATATT TCGGCTGAAC GCGTGCATGT GAAnGCTCT 399

(2) INFORMATION FOR SEQ ID NO: 2994:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 326 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2994:

AATGACAGGA ATCGTCGTTG CCTTTACTAA TTGACCAGTT AATTCAAAGT TAGGTCCGGA 60
 20 CATTTTGCCA TCTTTAGCAA TATCAGTATA TATAATGCCG CCAAGAGGTA TATCCGATAA 120
 CCGTCTCACA AACTAAATAA ATTTAACTCT GTGTCCTCTT CCCATCCGTT CACTTTAATA 180
 TCTTCTCCAT AGGCATCAAC AGATAATAA ATGCGACCTG GAAATGTATG TGCCATCTCT 240
 25 TTAAGCCAAT CAGTATCTTG AATACCTTTC GTTCCAATA TGCAATAATT AATCCCTCGC 300
 GCAAAGTAGT CCATGATTG TGACTT 326

(2) INFORMATION FOR SEQ ID NO: 2995:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 400 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2995:

CTAATGCCGA TGAGCAAAAC ACAAGCATTG GAAATTATTA AAAAAGTTAG GTACGTATAC 60
 40 AACATTGATT TTGATAAACC GAAGTTAGAA ATGTGGATTG ATGTATTAAAG TCAAAATGGA 120
 GAITATCAAC CAACTGTAAA AGCGGTAGAT GTTTATATCA ACAGTAACAA CCGTATCCCG 180
 45 CCTAACTTAC CAGCAATCAT GCGTAAGGAA CCTAAAAAAG TATCTATCGA GCCAGTAGAT 240
 AACGAAACCG CTACACACCA TGGGAAAATG CAGAATGACC CGAATTGTCA GACAAGGAAA 300
 50 ATAGCGCTAG ATAGTTCATG AATAGTTGGC AGATTGGGGC GAACGATGAT ACGnCAATTCG 360
 ATTGAAGTCA TATGTCGTA CTTAACACCG GACGTnGAA 400

(2) INFORMATION FOR SEQ ID NO: 2996:

(A) LENGTH: 400 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

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(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2996:

10	GAATGTAAGT GTCCCTTAAG CATAGTGCTC CCACCTTAAA TTTTGTTCAC TACTTTCATG	60
	GAATGTACGA GAAATTACAT CTAATTGTTG TTCACGTGTT AATTAAATGA AGTTAACAGC	120
	GTAACCAGAT ACACGGATGT TAACTGTGGG ATATTCTTCT GGATGTTCCA TTGCATCTAT	180
15	TAATGTTTCA CGGTAAATA CGTTAATATT TAAGTGGTGA CCACATTGCA TTGCGTAACC	240
	ATCTAACATA CTAGTTAAGT ACGGTTTGAT CTCGTGGTCT TTACCTAATG ATTTGGnACG	300
	ATACTGATGT ATTGAATAC CATCCTTACA GCATCGTAAG GGGTCCTAGC CACAGAACTT	360
20	ATGAAGAAAT GCACCTTTIn GGCACnGGCA TGCATGGGGT	400

(2) INFORMATION FOR SEQ ID NO: 2997:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 335 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

30

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2997:

	ATGATATTAA CCTGTTTACA AGATGGTTGA TACTTGGCCA TGAATTTGA ATCTCAACA	60
35	CCATATTATT ATGGTACATA CGAAACTGAA AATGAATCCA TAGTTACTGA CAAAGAAAAA	120
	ATCTTAGTAT TAGGCTCTGG ACCAATTCGA ATCGGCCAAG GTGTAGAATT TGACTATGCG	180
	ACAGTTCACG CCGTTTGGGC AATTCAAAAA GCAGGGTACG AGGCGATAAT TGTGAATAAC	240
40	AATCCAGAAa CAGTTTCAAC AGATTCTCAA TTTCTGACAA ATTATACTTT GAACCTTTAA	300
	CTGAaGAGGA TGTGATGAAT ATCATTAAAT TTGGA	335

(2) INFORMATION FOR SEQ ID NO: 2998:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 397 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

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(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2998:

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GCAGTAACTA ACTTTTGTAC AAAAGGATCA TTTTATCAA CATAATGTGG TGGITGGACT 120
 TTACCTAATT TCACCTCAAA GtATTGTGA ATCTCATTG CAAAACGATC CATAGCTTTT 180
 5 TCAAATTCAA ATCTTCTGG GTAGCGTAAT TGATACCGAA AAGACCTGCG TTTTCATTAT 240
 CATATGTAAT AACACCAATG TTAGTTGTCA CGTCACCCAT GgACATCTGT ATGGgAATTT 300
 CATTCCCAnc TTTTTCACCA AAATCnGGAA TTGAAATAAG TGAGCGATTA CGAAATGGCG 360
 10 ACAAACGCCT GTGGCATTGA TnGAGCAAGA TThAAGG 397

(2) INFORMATION FOR SEQ ID NO: 2999:

(i) SEQUENCE CHARACTERISTICS:
 15 (A) LENGTH: 400 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

20

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2999:

AAAGCTGTGT TGGTAAAGAG TTTTGTGAT TTGTTACGCA ATACACGACA CGACTTGGCA 60
 25 TTCTGTTAGA AAAACATTT GAATACATCG ATACACCTCA TAAATTCAA ATGGGTGTAT 120
 CAGGCTGCCC AAGAAGTTGT GTTGAATCAG GTGTTAAAGA TTTTGGTATT ATCTCAGTTG 180
 AAAATGGGAT TCCAAATCTA TATCGGTGGT AATGGTGGTA CAGAAGTTGA AAAAGCTGAA 240
 30 TTTTAAACAA CTGTAGAAAC AGAAGATGAA GTAATCAAAT TATGTGGTGC TTGATGCAA 300
 TATTGAnCGC GAAACAGGTA TATATGcNcGG AAAGAACCAG CGCCAGGTT AAGAAGACCT 360
 GGATTTGAAA ATGThAAAAA AAGTCCTTAC CTGGGCCCCC 400

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(2) INFORMATION FOR SEQ ID NO: 3000:

(i) SEQUENCE CHARACTERISTICS:
 40 (A) LENGTH: 506 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

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(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3000:

AACGGTAGTA TTACAGAAAG CTCTACTTAT GGTGATAATG ATACACCAAGC GCCACCAACT 60
 GACGAATTAG GTGGTAGITG GACACTATGG AAAAATTTAG CGCGACAAAG TCCTGAATTT 120
 50 GGTAATCCTG ATAAGTTTGT CCAAAATATT CCTAAAAAAA GTTGGTTTGT TTCAGCAACT 180
 TCTACAACAA ACAATAAAGA GATTATCGAT ACAATAGAAA GTATTGTGTA ACGTGACCCA 240

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AGTTTTACAA TCAATCGTCA GcACAGTTT aAAGACCAac CTGrAAATGA AaTATCTACA 360
 TGGATTTATG CTTTATATyC AGATGTAAac GGCGATTATA TTA AAAAGCC AATTACAGAA 420
 5 TGTAGTGGTA ATGAAATATG CCAAGnatGG CTGTATChCT TnGGTGTATC AACTGACAAG 480
 ATTGAAGACT TAGCAAAACA TGCCTC 506

(2) INFORMATION FOR SEQ ID NO: 3001:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 353 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3001:

ATTGATGGCA TCGAAAACT TTAATAAGAC AACAAAGTTGA TGAGATATAT GTATATAGGT 60
 TTGGCATGGA TTTCGATTGC AGTTAATTAG AATAGCTCAA TGCTATAAAT GTAAGTAGTT 120
 GATATGAAGA AACTAATGAA CTAATGCAA GTATTGTCTA AAACAATCAT TTTATTGAAA 180
 25 TTTAGTAGAG CTGAAATTAA TATAACGTCG TTAATTGAAT AACGCTTATG TTATAAGAGC 240
 ACTCATACCA lACCATAATC ATCTATAGnT ATAACAATTC ACGTATAAGG GGCTGTGTTT 300
 GGCATAGCCC TTAGGTATAC ACCTAATTC CATTAAAATA GTAGGGGnTT AAA 353

(2) INFORMATION FOR SEQ ID NO: 3002:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 400 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3002:

CAACAAAATG TCTATATGGT AAGTGGTAAA ACGAAAAATG ATGAAGACTA TTCATCAACT 60
 ATTTTATATA ACAACGAAAA AGAATTACAA AAAATTACTG ATGCTGCTAA AAAGCAAAAC 120
 45 GGTGTAAAAA TAACGATTAA AGAAGAAGAA AAACAAAGTG TCTTTGTGAG TACTCTTCA 180
 ACATTAATTC CAGTTGTAGT CATAGCGTTA TTATTCTTTC TCTTCCTAAG CCAAGCACAA 240
 GGTGGCGGTA GTGGCGGTGC TATGATGAAC TTGGTAAAT CTAAGCAAA AATGTACGGT 300
 50 GATnAATAAA CGTCGTGTC GTTCTCTGA TGAGCCAGG GSCCAGATGn AGGAAAACCA 360
 AGGnTTAATT GGAAATTGTT GGTTCCTGG AAAGGTAATG 400

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 400 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3003:

ATAACATCGG CACAGCAGCT AAAATAACCA TACCCAAAT GAnTGTATCT TTAACGTGC	60
ACCGTAAAGn CTTCGACTA GCCATGTATA AGCTTTGGCA GCAGATAATT GCTTCGTTGT	120
AATGAGTAAT CCTTGGACAA GCGCAATAAA CAACGTTGC ATCGAAATAC CGATGATTAT	180
GAGTGTGTGC GGGCGTATTT GTCCTTTCGT TTGAAACACT AATAGTATCA TCATTGCAAC	240
TGCGCCACCT AATACTGCAA ATAGTGGAGT AAATGTATTG TTAAAGGCTG AAAATGCAAT	300
AAAGACAACA GCACCTAAGC TAGCACCACC TGTGATACCG CTAATATCAG GTGAGGCCAA	360
TGGnnTTTT TTATACATTT TGGCAACATT TAACCACTTC	400

(2) INFORMATION FOR SEQ ID NO: 3004:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 354 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3004:

CTAATAACAA ATGCATGAT GATTAACTACT AATTACCTG CTGCTAATAC AGAATCTCCA	60
AGGAATGAGA AGAATGGTTG ACGTTCAACT TCATTGTTTT TAAGACTGTA GATAATATCT	120
TCTTCTCTT CAACACTTAC TGGATTCAAC AAGCATGACA CAATAATCGC GTTAACGGAT	180
ATTTAGTGGG ATTGCCGTTA GTACCAGTTC TCCTGGTACC ATTTGTACAT ACGCACCTAC	240
AATAGTCCCC GATACAGAGC TCCATTGACA TCATTGCGAT TGTTAATACA CGCATTTTCA	300
TnCACAGGTT TTAGTTGCTC ACTTGGATAC GGGCTAAnGC TnCGTGAAT TGCC	354

(2) INFORMATION FOR SEQ ID NO: 3005:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 378 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

GGTCAGCTTA TTGAACAAGG GACACGTGAA TCAGTCTTGC ATCATCCAGA ACATGTTTAT 60
 ACGAGATTTA TTATCAACGA AGAAGAAGAT TAATGATCAT TTAAACATG TGATGAGGGG 120
 5 TGATGTACAT GATTAATAAT AAAGATGTTG AAAAGTCATA TCAAAGCGCA CATGTTTTTA 180
 AGCGTCGTGC AACACCTATC GTGAAAGGTG TGTCAATTGA GTGTCCAATC GGTGCGACGA 240
 TTGCGATTAT CGGAGAAAGT GGTACGGnTA AATCGACGTT TGAGTCCTAT GATATTAGGT 300
 10 ATTGAGGAAC CGGATAAAGG TTGTGTACCC TTAATGATC CACCGATGcH TAAGAGGAAG 360
 TGAGCCGCCA CChATTGG 378

(2) INFORMATION FOR SEQ ID NO: 3006:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 1785 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 20 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3006:

25 AChnTIAGTTG GCCAAGCCTT TATCCGGAAT TATTGGGCCT TAAAGCCCCC TTAGGCGGTT 60
 TTTTAAGTCT GATGTGAAAg CCCCGGCTCA ACCGTGGAGG GTCATTGGAA ACTGGAAAAC 120
 TTGAGTGCAG AAGAGGAAAG TGGAAATCCA TGTGTAGCGG TGAAATGCGC AGAGATATGG 180
 30 AGGAACACCA GTGGCGAAGG CGACTTCTG GTCTGTAAct GACGCTGATG TGCGAAAGCG 240
 TGGGGATCAA ACAGGATTAG ATACCCTGGT AGTCCACGCC GTAAACGATG AGTGCTAAGT 300
 35 GTTAGGGGGT TTCCGCCCTT TAGTGCTGCC AnTAACGCAT TAAGCACTCC GCCTGGGGAG 360
 TACGACCGCA AGGTTGAAAC TCAAAGGAAT TGACGGGGaC CCGCACAAAG GGTGAGCAT 420
 GTGGTTTAAT TCGAAGCAAC GCGAAGAACC TTACCAAATC TTGACATCCT TTGACAACTC 480
 40 TAGAGATAGA GCCCTTncTT CGGGGGACAA AGTGACAGGT GGTGCATGGT TGTCGTGAGC 540
 TCGTGTCTGT AGATGTTGGG TTAAGTCCCG CAACGAGCGC AACCCTTAAG CTTAGTTGCC 600
 ATCATTAAGT TGGGCACCTCT AAGTTGACTG CCGGTGACAA ACCGGAGGAA GGTGGGGATG 660
 45 ACGTCAAAATC ATCATGCCCC TTATGATTG GGCTACACAC GTGCTACAAT GGACAATACA 720
 AAGSGCAGCG AAACCGCGAG GTCAAGCAAA TCCCATAAAG TTGTTCTCAG TTCGAATTGT 780
 50 AGTCTGCAAC TCGACTACAT GAAGCTGGA TCGCTAGTAA TCGTAGATCA GCATGCTACG 840
 GTGAATACGT TCCCGGGTCT TGTAACACACC GCCCGTCACA CCACGAGAGT TTGTAAACACC 900
 CGAAGCCGGT GGAGTAACCT TTTAGGAGCT AGCCGTCGAA GGTGGGACAA ATGATTGGGG 960

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	TATATTCGGA ACATCTTCTT CAGAAGATGC GGAATAACGT GACATATTGT ATTACGTTTT	1080
	GAATGTTTAT TTAAACATTCA AAAAAATGGG CCTATAGCTC AGCTGGTTAG AGCGCACGCC	1140
5	TGATAAGCGT GAGGTCGGTG GTTCGAGTCC ACTTAGGCCC ACCATTATTT GTACATTGAA	1200
	AACTAGATAA GTAAGTAAAA TATAGATTTT ACCAAGCAAA ACCGAGTGAA TAAAGAGTTT	1260
10	TAAATAAGCT TGAATTCATA AGAAATAATC GCTAGTGTTC GAAAGAACAC TCACAAGATT	1320
	AATAACCGCT TTAATCTTT TTATAAAGA AAACGTTTAG CAGACAATGA GTTAAATTAT	1380
	TTTAAAGCAG AGTTTACTTA TGTAAATGAG CATTTAAAAA AATGAAAACG AAGCCGTATG	1440
15	TGAGCGTTTG ACTTATAAGn ATGnnnGATA TGTGTAATAT CCATATCTAA AGCTAGATCT	1500
	AAACTTTGTT CAAAATCTTC AATCGTCTGT TTCGGTAAAT GATACATTAA ATCTAAACTG	1560
	ATTGATTTAA TACCTGCGTT TTAGCATTT AACACCGAAG TGTAAATATC TTCAGTATTG	1620
20	TGCGTTCTAC CTA AAAACAGA CAATAACTCC GGCTTGAATG TTTGAACGCC CATTGAAATC	1680
	CTTTTACTC CATATTTCTC TAATAGTTGG ACTTTCTCTT TAGTTAACTC ATCAGGATTT	1740
	GCTTCAAATG TATACTCGCC TGTGATTGTA AACGTATCAC GTATT	1785

(2) INFORMATION FOR SEQ ID NO: 3007:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 360 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3007:

35	TGCAAAAAAC ACAATAACGA TAAATGTTCC CATTGATCCT ACAGCATCGC GAACATTTTA	60
	CCTAAGTCTT TTGTATTTT AATTTCCTTG CTAAAAATCC CATAAACTAA TCCAGGTACT	120
40	AAAAATACGA CAAGAATAAT TAATCCGACA CCGTTAATTA ATGGCGATCG TCTAGTAAGC	180
	TGCGTGTTTT AGCATTTCTT AAAAAGCTAT GTCAGGAATG GCTGTAATAA TTAATAAAAT	240
	AATTGnGCTA TGAAGTATA TTTGCCAATT TAAAnATGT GCTCTTTGIC AGAATATGTG	300
45	AGATGnTnCT ATGGCATCAT GCATTAACT GCATCATATT TTCCTAATCT AGGATAATGA	360

(2) INFORMATION FOR SEQ ID NO: 3008:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 350 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3008:

	TTGCCTTCAA ACACATACTT GTAGTCGGAT GATCACCTGT TCCAAAAGnC ATACCTGGGT	60
5	CGAGCTCAAT GCAAAGCTCT TCATCCGCTT CTTTAGCATA TGTTTCCCAA CTAGGAACATA	120
	TTGTGAACCTT CTTGACGCT CGGGAATGGA TGGAAATAGT TTTTCCATTC ATTTTCCCAA	180
	TCCGTCTCTG CAATAATTGG CTCACCTGAAT TGAACGTTAT GTTGATCAAG TTCATCTAAA	240
10	TTTAATAACT CATCTTTGAA TTTGCTGTCG CAACTGTATC ATCATAAGTG CATTTCAGTA	300
	AAATAGGCTT nGCAAnCTTA CTCCTTTATC TGGGATAAAG CCTCGGTTTT	350

(2) INFORMATION FOR SEQ ID NO: 3009:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 383 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3009:

25	TCTTATATCA CCAGGAATTA ACACTGCCTT TTGACCACTT TCTTCAATCA CTTGGCGTAC	60
	TTCTTGTCGA TCTTGTTCTT CACTCGGAAG ATAGTTAATC GCTACATCTG CACCTTCTTT	120
	AGCATAAGCA ATTGCTGCTG CACGCCCTAT TGCTGAGTCA CCACCTGTGA CTAAtATTTT	180
30	ATAGCCTTGT AAGGTTGAT GACCTTGGA AGACGTTTCG CCACAATCGG GTGCTGGCGT	240
	CATTTCAGAT TGTAACCCG GTACCTCTTG TTCTTGTTT TCaTAATCCG TTGTTTTAAA	300
	TTTTGTCnA GgaTCTkGAG KkGCCaTTTT TtGACaYcLc CGTATnCGCT TAATGGGTAT	360
35	CATTTACCCC AATCTTCCTA AGG	383

(2) INFORMATION FOR SEQ ID NO: 3010:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 388 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3010:

50	TAATTCAACG GGAATTTTCC CTTTGAAGTT AACATAACGG TAGGCTGCTT TAACAGCTTC	60
	ATCATCGGGC GCTTCGACAT CTCTAATTC ATATGCAATG CCCAATGTTT TCCACTTATG	120
	AACACCTAAC TGATGATATG GCAGAAATTC AAACCTTTTCG ACGTTATCAA GAGAATTAAT	180

TGTCGAATCC ATACCAGGTG GTTTCATATC TGACAGTTTG CGCGCGAAGT TAAAGGATGT 300
 GTGTATTAGG GCITTTCCCGG TCCATCCAAA TanGGTTGGT CCATTAATCC ATAAGGTTTT 360
 5 AnAATCnAAA TAATAATCCA GTCCGGTA 388

(2) INFORMATION FOR SEQ ID NO: 3011:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 400 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3011:

ACTGCTGTAA CGTCAGTTGA TCTTTTCATT CTGGTTTAA TTCTGAGAC GTTACTTGGT 60
 20 TnGnGnAnGc CACCAATTGC CATACCGACA GATTGGAAGA ACAATGCATC AGTCCACCA 120
 ACACCAAGA TGTCACCAAG TACAACGAAA CCTACATATC CAACTGTAGA TACAATTAAA 180
 ATACCCATTG CTTTTTTTAA TTCAGGATTA TCTGATTGAC GtncATTTTT AGCTTTAAGT 240
 25 GAAGTAAGTG CTACACCAGT AACTAATAAT ATCATGGCGA TTAACCAAA GATAATTTGA 300
 GTCATTGAAG ACCATTACCC TAAAAGATA ACGCTGGAAT AATGGGTGAC CCAACTAATT 360
 GGCATACCTG GTAGAAACT GGCATAGGT ATTTGGATAC 400

(2) INFORMATION FOR SEQ ID NO: 3012:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 400 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3012:

TTATCGGATT CGTTAATACT GGCGGTTTAC GCAATAGTTT AGATGTAGAT GATAACAATG 60
 TGCTATTAA ATTTAAGAA GAGTTGGAAC CTAGAAAGTT TGTTTTCACT AACGGCGAAA 120
 45 TTAATACAA TAGCAATTC GAAAAGAAG ACGTACCGAA TGCATCAAC CAACAAAGTG 180
 CGTCAGATT AAGTGATGAG GAACTTCGCG GAATGGTTGC GAGTATGCAA ATGCAGGTGG 240
 CACAGTAAAC GTATTACAA TGGGATTAGC TCAACCAAC GCTATGTTAA CACCACAGTT 300
 50 GACTGACTGG AAATACCAA ACCAGTACTG AGGGGnCGTT AATAATGAGT GTTTCACCTT 360
 AAGCATAAAC TTTTGTGGT CTTAAACGCG ATTAGTGTCG 400

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 389 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3013:

GGCTGTAATG AAAATCAAA AGCCAAGCTT ATTTAATTCG CCTTCATGTG TCGTGAATC 60
 AATAGTGTTC GTATCATGAC TCATGACTTA CAGCCTCCCT TTCTTTAATA CGCGCTTCTC 120
 TTAATCTAGC TTCAGTTTCT GCAACTTCAG CAGCAGGGAT ATGATATCCG TGATCGAATT 180
 GGAAGCTGCG ATAAATCATA GTACCAAAAA TACCGAATAA ACAAATTAAAT GCTGGAATTA 240
 CAGTTTCGAA AATTAGAAG AAACCGCCGA TAGTCATAAA GATACCAATC CAGAATCCAA 300
 CAGGAGTAAT GGTGTGGCAT ATGGATGGCC TTGGnAATAA TGGGTGnCC TAAGTAATGG 360
 CCGACCAAGG TCCTTTCCAn ATCCACCAA 389

(2) INFORMATION FOR SEQ ID NO: 3014:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 400 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3014:

AATCGCTTCG GTTAACTGTT CTAACCATTC GTAATAAACA TGTGTATGAT CAAGCTGAGC 60
 TTTAATTTTT TGTGCCTCTT GTGTTTCAGC TTCAGTTAAA TCACTGCTTT CAAGTAATGG 120
 ATTGATAATA GCTTGAGCAT CTTTACTGTC TTCGACATTG ATGTCAATTT CAGCGTGGAA 180
 TTTTCTAGTG AAAAAGTTTC GGAAAAAGAT GAAAAAGTCT TTCTCGGCGA TAAATGTGT 240
 TTGCGGCTCC TCTGTAAAT TGTGGTTAAC AATATCAAT TCCTGCAATT CCTAACGCAG 300
 CACTCATACT nGTTGnCAT TGCAATGATG ACGCATTAC AGGGCAACTG CTCACACAT 360
 GGCATAAAG TTCCACACTC ATAGGCAACA ATCATGGCGG 400

(2) INFORMATION FOR SEQ ID NO: 3015:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 379 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3015:

nCCTATCTCT GGTGAGAGT CTTTGAGCTG AAAAATGTGA CACACAAAAT TGCAATGGnA 60
 5 TCAACAAATG TTGCCATTG TGGATGGTCT TGACTAAGTA TTGGTGTTT AACTTGGTGA 120
 TTGCCATGA CTAATACCAT GTCATTTGTA CTTGTATCGC CATCAACAGT AATCATATTA 180
 AATGTATGGT CAGTCGAAGA TTTTAATAAT TGATGAAGTG TATTCGATTG AATCGATGCA 240
 10 TCGTGTGTTA TAAAGCAAG CATGGTAGCC ATATTGGGT GAATCATACC TGAACCTTTG 300
 GTGCTACCAC CAATTGTAAC GGTTTACCAT CGATTTTAGT GATACAGCGA TATGTTTTGT 360
 15 ACAGGTATCA GTGTTAAAA 379

(2) INFORMATION FOR SEQ ID NO: 3016:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 400 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3016:

CATATAAATT GCTAACGTGC CACCATTAC TAAGGAATTG ACATCCACTT CATTTTCTTC 60
 TGAATCTTTA AAGTGACCTG TAGAAAAATG CACACTTTA GCAACTGTAC GCATTGTCAA 120
 30 ACCTGCTGCG ATAGTAGCAA CTGCTGCGCT CGCTGATGTC ACCCCTGGTA CAATTTCAAA 180
 CGCAATATGA TGTTCATTTA GTATGTCGAC TTCTTCTGCG ACACGACCAA ATATCGCTGG 240
 ATCGCCAACT TTAAGTCTAA CAACCTTGT ATATCGACGC GTGCTTCCAC GATACAGTCA 300
 35 TTATTTTTCT GCGGAAAAAT GTTTGGAAAC GGCTTTTACC AACAnGGTAA TTCAGAGGCA 360
 ATCGCAATGn AAATTACGg TCACnAACGG TCATTGGATG 400

(2) INFORMATION FOR SEQ ID NO: 3017:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 310 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3017:

CCTTTTCTC TTCTTTCATA TCTGCAACG TGCAATCAAT TTAGATCTA AATCTCCAAA 60
 TGCTTCTGCA ACTGGTTCAG AGCGTTCATA ATACATACGA ACTTTTGGAT ATAACGCTTT 120

TCATTTAAC GTTCATCAGT ATATTTATCA TATGCTTTTG TTGCTTGTIT TAATTCTGCT 240
 TTAACACCAT CATCTTTTTT CGATGTCITT GAATCATCCT TCTTACTATC GTCGTTCCCC 300
 5 ACATGCAGCA 310

(2) INFORMATION FOR SEQ ID NO: 3018:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 350 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3018:

TGCTTTTGTA AATTCTGGAA CAAAGnCAGT CATGACAACA ATTGCTGTTG CACGTGCATA 60
 20 TACTAAAGA AATAAATTA TAAATTTGCG TGGATCTTAT CATGGCCATT CTGATTAGT 120
 ATTGGTTGCA GCAGGTAGCG GCCCATCTCA GCTCGGTTCT CCAGACTCAG CTGCTGTTC 180
 AGAAGCGTC GCACGTGGAA GTCATTACTG TACCTTTCAA TGATATTAA CCGCTATAAG 240
 25 AAGCAATTGG AATTTTGGGG TGATGAAAT GCCGCAGTAT TAGTAGAACC AATTGTTGGT 300
 GAACTTTGGG AATGnnAAT GCCTCAACCT GGGATTTTGA GGAAGAGGGT 350

(2) INFORMATION FOR SEQ ID NO: 3019:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 400 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3019:

ATATCATGTG CCAGTGAAG CGGCACTGGn CGGATATGGC GCACATATGG ACATTATGAA 60
 40 AGAGTACCAA TTAATCATTT TAGCGCCACA AGTTGCGTCT AACTATGAAG ATATTAAGCA 120
 AGATACAGAT AGATTAGGTA TTAATTTAGC GAGGACTCAA GGTGCTGAAT ATATCAAATT 180
 45 GACACGgGAT GGCCAAGCAG CCCTTGATTT CGTTCAACAA CAATTGGAAT ATTAAGAATA 240
 GGAGTTTTTC ATATGACTAA AACATTACCT GAAGGATTTT ATTTTGGTG GAGCAACAGC 300
 AGCATATCAA GCAGGAAGGT GCGACCAAT TACGGGATGG GTTAAAGTC GCGTGCAATT 360
 50 GGGATACGGT ATTTTAGGAA GGAAAACTTA TTGGTACCA 400

(2) INFORMATION FOR SEQ ID NO: 3020:

(A) LENGTH: 361 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

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(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3020:

10 ACGTTGCTCT TACGTTTAAC GCCATACSGT GTATTAGCAA TTATGGnCCA ACACATTATC 60
 GACAAGTGAC TTTGGCGCCA TTTGGACITT AGGAAAAATT CTTAATCGCA TCGTACGCTG 120
 CATTAATTAC GATGTATATC ATTCACITTA TTATTTTAAG CCGTGTAGGT ATTAGCCCAA 180
 15 TCGCTATGT TAAAAAGACT TTGGAAGTAT TAATCTTTGC ATTCACATCA CGCTCAAGCG 240
 CGGGTGCTT ACCAATGAAT GTACCAACAC CAACCAGACG TCTAGGCGTG CCAGAAGGTA 300
 ATGnCAATTT CGTGCAGACA TTTGGAATGG CGATTGGACC AAATGGGTGG GCAAGnAATT 360
 20 A 361

(2) INFORMATION FOR SEQ ID NO: 3021:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 356 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

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(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3021:

CAATGACCAT GACCAGTTGA TTTGGAACAA TGATTGACAT TGGAGCTATG CATCAAGTTT 60
 35 GTCTTTAAGA CTACTAAACC CACGAACCAT GTTAACCCCG TGGTGACCA TCACCAATTG 120
 nCTGATCTA ATTCAGTTAA TTCAGATTCA TGTTTTTTAA ACGTTTCTTC TAAATTTAAT 180
 AAACGTGnCT TTCATATCAT TCACTTTCAT TTGTGnCCAC CTCATAAATG TATATTATCA 240
 40 TATTCACTCT TATTAAAGTA TGACTGTGTG TGGTGCTAAA AATGCTCCAA ATATTGGTT 300
 TATTAGGCAC GATAGTTATA GAAAAACCTG ACAGTCTAAA GATGTCATAT AATCAC 356

(2) INFORMATION FOR SEQ ID NO: 3022:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 332 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

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(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3022:

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GTGTTTGGTC CAATATCCAT ACCTTCTTGG nTCTGCTGGA ATTGAATCAG ATGSTACTAC 120
 AGTGATTTTG GCATCATTAG nAAAAATTCCT TAGTCAACTT TAGTGCTAC TGGTAATACA 180
 5 ATTTTATCAC CATGTTTTTC TAATAAATCT TTTGCGAGTC GGATTTTATC TTCTCTAAT 240
 AATGAAATAC CAATTTCTTT ACCTTGGCT TTTAAGAAAG TATAAGCCAT ACCTCGGCCG 300
 ATGATAATTT TATCAGCTAT GTTAACTAAT AA 332
 10 (2) INFORMATION FOR SEQ ID NO: 3023:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 311 base pairs
 (B) TYPE: nucleic acid
 15 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3023:
 20 AAAGGTATTC CACAAGAATT AGCTTTGCAA AAATGCCAAA GCAAACAGAA GATGnACAA 60
 TTAAAGTGn CTACAATCA TGAATGAGGA GGACGCGTAA GATGAGCAAT CGCTACGAAT 120
 25 CGGTGAGAA TTTATTAAT TTAATAAAG ACAAAAAAAT CAAACCATCT GATGTTGTTA 180
 AAGATATATA TGATGCAATT GAAGAGACTG ATCCAACAAT TAAGTCTTTC TAGCGCTGGA 240
 TAAAGAnAAT GCAATCAAAA AAGCGCAAGA ATTGGATGAA TTACAGGCAA AAGATCAAT 300
 30 GGATGGCCAA T 311
 (2) INFORMATION FOR SEQ ID NO: 3024:
 (i) SEQUENCE CHARACTERISTICS:
 35 (A) LENGTH: 319 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3024:
 40 ATTAGACATT ACAAGTGCA GTACGTGCAA CATATTAGAC ATATTGAAT AAGTGGTCAT 60
 45 GnAAGGTATT GACAGTTAAA AAAGTTGAAC AATTAGAAGA AATCGAGGCG TTAATATTAC 120
 CTGTGGCGA GTCTACAACG TTACGTCGAT TAATGAATTT ATATGGATTT AAGAGGCTT 180
 TACAAAAATC AACTTTACCT ATGTTTGGTA CATGCGChGA TTAATAGTTC TAGCGCAAGA 240
 50 TATAGTTGGT GAAGAAGGAT ACCTTAACAA GTTGAATATT ACTGTACAAC GAAACTCAT 300
 CGGTAGACAA GTTGACAGC 319

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- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 320 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3025:

GGTGCCCAAGC AATAAATATG ACTATGCTCA AACTGAATTG ATGGTGGGTG TGTGCCCATC 60
 GTAATTGGAT CGTCTGAAGG CGCATATAAA TGATAGTGCT CTTGGAATAA AGGTAGCATA 120
 TGTAAATTGTT TGTGTTTACG TATTCTCGT GGTAACTCC GTGAAACCCA ATGTCTATAT 180
 TCCCATTTAA TACGCTATTT ATAAATGTGT CATGTTCTAA TAAGCTCGGT ATGACATGTG 240
 TATCATTTTG TAAATGAAC GTTTGGATAA GnGGGAGTAA CATGTGGGAT ACGTCACTCT 300
 CATCAAGCCA TGTAGATACn 320

(2) INFORMATION FOR SEQ ID NO: 3026:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 328 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3026:

TCTCAACAAA TGCATCCAGT ACTTAAATTG GCATTATAGT AATTTAAGnA CAATATATCA 60
 ATATTTCTCC TTATCCAGCA ACAGCAAATT TATGGTAAG GTGTACGATT GAACCTTTAG 120
 TCAATGAAGC AGGTACATTT GGATTGGCCA GGTGGATTGA CTCAACTGA GCGCTTTGTG 180
 AGAATGGGCA TTTTGAAG CAAACATTGC TCAAAACAAT GATAAAGAAA TGGATTTAAT 240
 GAATGCATTT TATTTATTAG ATGCGGTAAA TATACGATT GGAATTGTAC GTCCGCATGA 300
 TGCTGACAAT CACTATACGA TGTATCCA 328

(2) INFORMATION FOR SEQ ID NO: 3027:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 322 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3027:

ATTGAAAAATA TGTGTTCTnT GTAAAAATTTT AATCGTTCGC CACGATGCTG TTGATAAAAA 120
 TTCAAAAACT GGAGTTGATC TTCTAGTTGA ACATAATCAT CGTAATTAGA CATGTAACCT 180
 5 TTGATTAAGA TTTCAGATAC ATGATCTCG ATAGTATTGn TTTTAACITG TTGTTGAGCC 240
 GCTATATCTT CCATCGTGGG ATTGTTCAAG CAATTTTGTA TAAGTAATAT AAGTTCGATT 300
 TAATGAATGT AGGTTTCATT AT 322

(2) INFORMATION FOR SEQ ID NO: 3028:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 313 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3028:

CAAGAATCTT ATACTTATCA AAATTTATAC TGTGAAGCGA GTCTATTGGC TAAAAGACTC 60
 AAGGCTTATC AACAACTCG TGTGGGGCTA TACATAGATA ATTCGATTCA ATCGATCATT 120
 25 TTAATACATG CATGTTGGTT GGCAAAATATT GAAATTGCGA TGATTAAATAC AAGnTGACA 180
 CCTAATGAGA TGACGAATCA GATGAAGTCA ATCGATGTAC AATTGATTTT CTGTACCTTG 240
 CCATCGGAAT TACGAGGTT TCAAATTGTA TCGCTGGATG ATATTGAATT CGCCnCCGG 300
 30 GChTATTACA ACG 313

(2) INFORMATION FOR SEQ ID NO: 3029:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 386 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3029:

CTTCCAAAGA AAAGACCACA GTTTTGGACG CATCAATATG GTGCAATTTT AGAGACACTG 60
 45 TAGTTGAGA AGATGGTTCA GTTGGACTTT GAAGACAATC GTTATACAGA AACACGCGTG 120
 CGGCTTATCC AATTAATCAC ATTGACAATA TTGTAGTACC ATCTAAAGCA GCACATCCAA 180
 ATACAATTAT TTTCTTAAC TCGGATGCAT TTGTTGTTAT TCCACGATT TCAAAGTTAA 240
 50 ATAAGACCAG CAATGTATCA TTTCTTGAGT GGTTCACCTC TAAATAGCTG GnCAGAGCGT 300
 GGTGTGACAG ACCTGACCAT CATCTCAACA TGTTGnGCA CGTCTTCCG TACATCnACT 360

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(2) INFORMATION FOR SEQ ID NO: 3030:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 400 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3030:

TGATGGATTG GCTAGCAGGT GTTACATTA ACTCATTAAA TGTATTACAC TACATGCACG 60
 ATAAATACAG CTATGAACGT ATTGAAATGG CATTACATGA TACAGAAATT GTACGTACAA 120
 TGGCAACAGG TATCGCTGGT TTATCAGTAG CAGCTGACTC ATTATCTGCA ATTAATAATG 180
 CACAAGTTAA ACCAATTCGT AACGANGAAG GTCTTGTAGT AGACTTTGAN ATCGAGGCGA 240
 CTTCCCTAAA TACGGTAACA ATGACGACCG TGTAGATGAT ATTGCAGTTG ATTTAGTAGA 300
 CGCTTCATGA CTATTACGT GGTCAATTAA CATATCGTGA TTCAGACCTT CCATGGGnGT 360
 ATTACCATTA CTTCAACGTG GTnTCGGGTA GAAACTGGGT 400

(2) INFORMATION FOR SEQ ID NO: 3031:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 319 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3031:

nGCGTTTAAT CACATCTTTT TGATAATGTT CCCTTACCAT TTCTTCATGT GCATCTGCAT 60
 AGTCTTTTCC AAATGGCAAA CTAAACTGAT ATGCAACTTT TAAATAGGCA TCTATATCGG 120
 ACTCGTCAAC GATGGCAATT TCAACGTcna GTTACGCGGA CAAATTGGCA AGCGCATCAC 180
 TTTCTATGGC ATACAATTCC ATAATACCTA GTTCAAAATT CATATCTTTA AAACATAGCC 240
 ATCCAATGGA TTATCAAGTT GTTCATTTTC CGGAAAACT nAAACGCATA AATGATTTGG 300
 AACCTTGATT TGTATGTGA 319

(2) INFORMATION FOR SEQ ID NO: 3032:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 400 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3032:

5 AAGAAGTGGC AATTATGATT GATGCTCTAG CTGACAAAGG GAAAAAGCA TTAGAAGCAT 60
 TATCTAAAAA GTCACAAGAA GAAATTGATC ATATTGTTCA TCAAATGAGC TTAGCAGCTG 120
 TTGATCAACA TATGGTGCTA GCAAAATTAG CACATGAAGA AACTGGAAGA GGTATATACG 180
 10 AAGATAAAGC GATTAAAAAT TTATACGCTT CTGAATATAT ATGGAATTCA ATAAAAGACA 240
 ATAAGACAGT AGGGATTATT GGTGAAGATA AAGAAAAAGG ATTAACGTAT GTAGCGGAAC 300
 CAATTGGTGT TATTTGGTGT GTTACCGCCC AACCAACCAA TCCCTACGTC CGACCACCTA 360
 15 TTTTAAAGC CGATGGATT GCCATTTAAG ACnGGGAATC 400

(2) INFORMATION FOR SEQ ID NO: 3033:

(i) SEQUENCE CHARACTERISTICS:

20 (A) LENGTH: 303 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3033:

25 TAGCGGTAAAT CGAAATTGGG GACTAAATTT CGCAAAAGCG GGTCGCACGA TATCAGAAGA 60
 GTATAATGTC CCTTTATTAA TGAAGTTTGA GTTACATGGA AAAAACAAAG ACGTTATTGA 120
 30 ATTTAAGAAC AAGGTGGGTA ATTTTAATGA AAACCATGGA AGAGAAAAAG TACAATCATA 180
 TTGAATTAAA TAATGAGGTC ACTAAACGAG AGAAGATGGA TTCTTTAGTT TAGAAAAAGA 240
 35 CCnGAGCTTT AGTAGCTTAT TTAGAGGAGT AAAnGACAAA ACATCTTCTT CGACACTGAA 300
 TCG 303

(2) INFORMATION FOR SEQ ID NO: 3034:

(i) SEQUENCE CHARACTERISTICS:

40 (A) LENGTH: 340 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3034:

50 CThOGCTATT TTGTAGGACA TCTTCTAAAG TGCTAGGnGA AGAGATTATA GAATAGGCAC 60
 TATCAATACC GAAATCGTAA ACATGTTGAT AATTTTCGCC TAGACTGCCA CAAATCGCGA 120
 TGACAGGAAT ATGATATTGT TTTGACGCTA ACGCAACGCC TGACGGGTGT TTTACCAAG 180

TGATGAAAAT CTGTAAATGTC AAAGACGGAC ATCAATGACT TTTGTTGAAA GTTGCTCTCAC 300
 AAAACGnTAA TGAATGCTGC GGCCCATGAC CGGCCAGCTG 340

(2) INFORMATION FOR SEQ ID NO: 3035:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 303 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3035:

AAAGAACATG GTGTAGCAAT AGTCTCTGGA GGTGGAAGCG GACATGAACC TGCGCATGCC 60
 GGTTTTGTGT CAGAAGGTAT GCTAGATGCA GCGGTTTGTG GCGAGTATTT ACATCACCTA 120
 CACCTGATAA AATATTAGAA GCTATTAAAG CAGTAGATAC TGGTGATGGT GTATTACTAG 180
 TTGTAAAAAA CTATGCAGGT GACGTGATGA ATTTCGAAAT GGCACAAGAG CTTCAGAAA 240
 TGGAAAGTAT AAATGTTCAA ACTGTTATTG TTCGTGnCGn CATTGCTGTG ACAAAACnGT 300
 ACA 303

(2) INFORMATION FOR SEQ ID NO: 3036:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 315 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3036:

GGGGAAGTA AATTACAGC TGTGTAGAAT AATTAAGGTT TTAATTIATA TAGAACAACT 60
 TATTGTAAAC TTTTCATTTT TTAAAGTTTA CAATGGTGCT ATAATAATGG TCATGAAATA 120
 CGAAGGAGAG GAAAAATGA CnACAAAACA GTTAGTATAT ACAGCTTTAA TGACACGAT 180
 TATCGTAGT TTAnGATTGG TACGGTAAT TCCACTACCA TTGnCTTCAG TACCAATTGT 240
 ACTTCAAAAC AGTGGTATTT CTTAGCAGGG GCGATTTTAG GACGTAATA TGSCACATTA 300
 AGTGTTATCG TCTTT 315

(2) INFORMATION FOR SEQ ID NO: 3037:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 330 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3037:

5 GCACCAATTG ACGAAGGAAT ACCGAATCCC ATTGTTCTTA AACCACCGCT TGTAACCCAT 60
 TGTCGGTGAT TTTTAAATGG ATAAAAATTGA GCTGCCACCA TTIGATGTTG TCCCACTGCT 120
 GTAGTAACAA TTGCTTCACC ATTGTGAATT TTGCCGATAT ATTCGATTGT TTGTTGTGGC 180
 10 TTACAAAATA CTTGATCTTC TTCACCAAGT TTAATGGGT GTTTCGTCTT ATTATTTTGA 240
 CAATGTTTAA CCCAGTCACT GTGTTCTATA GTCTCAACAT TTTTATCATT TAAACnTCC 300
 AAAAAACCTT TACAnGCCnG CAAAAAACCC 330

15 (2) INFORMATION FOR SEQ ID NO: 3038:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 334 base pairs
 (B) TYPE: nucleic acid
 20 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3038:

25 GTGAGTCCAC ATAATAACTT TGACGTCCTG TTAATGTTCT AAAAGGTACT AGACGTTCTA 60
 TATTCGTTGT AAATGGTGAA TATCGTCGAC CTGTTTATT TGAACTGGG AATACTGCTG 120
 30 TCGGTATTAC TTCTCGTGGT TGTGAAGTTA TATTTAAAAA CGAAATTTTC TCAGCAGCGC 180
 TGTGCTAGA AATATCTTT AACGGCATTG CAGTTTGTTT TTCGAGATCT TCATATGGAT 240
 TTTTGTGnAT AATTnACCAT TCGTAGCAGA TGGAAATACT TGAGTATnGG CATCAGCGAC 300
 35 ATTGACGTGC TGTATCAATA CGTGGACGAT TCGC 334

(2) INFORMATION FOR SEQ ID NO: 3039:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 327 base pairs
 40 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

45 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3039:

GGTCTGATG TGGTGAATGA AAAAGGTTCT TCTCTGTAAT GAATTATCTC TTACCGATGC 60
 50 AAGATATTAT GAGCATGCAT TGCTCAGCAA ACGTTGGTGA AAAAGGCGAT GTTGCAATTAT 120
 TCTTTGGTCT ATCTGGCACT GGTAAACAA CCTTTATCGG CTGACCCACA CCGTAACTA 180

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ATGCAAAAGC AATTAATCTT TCCAAAGAAA AAGAnCCACA GntTTTTTGA CGCATTCAAA 300
 TATGGTGCAn TTTAGAGAA CACTGTA 327

5 (2) INFORMATION FOR SEQ ID NO: 3040:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 305 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

15 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3040:

GTGATATTCA CGAnCGTTAT TTTCAATATT TGATAAGTAG AAAnTATGAC GATCTTCATG 60
 AACAGCATCT TGTTCCTCGT CAAATTC AAC GTCATCAAAA CGTTTGAAGA ATGTTTCATA 120
 20 TGCATCAACA GATACTTCAG TACGTTTATT TAATAATGCT TTATGTGCAG CTIGGATCTA 180
 AATGATCTTT GTAGCCTTCA ACTnAATGTC GCACATATAA ATTCACCAAC TGAACCTGAG 240
 CCATAACTGA ATAAACCGAT TGTTTCCACC AGCTTGTGAA TCTCGATTTT CAAGTGAATG 300
 25 ATATT 305

(2) INFORMATION FOR SEQ ID NO: 3041:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 317 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

35 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3041:

GTGTGTGACC TTAATGATC AACCGATGCA TAAGAAGAAA GTGAGACGTC ATCAAATTGG 60
 40 TGCTGTATTT CAAGATTATA CGTCATCATT ACATCCATTT CAGACTGTTA GAGAAATCTT 120
 ATTTGAAGTG ATGTGTCAAT GTGATGGACA ACCTAAAGAA GTTATGGGAA GTCCAAGCAA 180
 TTACATIGTT GGAAGAAGTC GGTCATATCTA AGGCATACAT GGATAAATAT CCTAATATGT 240
 45 TATCAGGTGG AGAGGGGCAA CGTGTGTCAT nTGGCGTGC AATATGTATT GAACCCnGAA 300
 ATATATTTTG TTTGGAT 317

(2) INFORMATION FOR SEQ ID NO: 3042:

- 50 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 351 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double

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(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3042:

5 AATCTTCGAA AAATAATGCA ATGCAGATTC CGAAAAAAC AATATGATAG AAACACCTCA 60
 ATTAAATACA ACGGCTAATG ATACATCTGA TATTAGTGCA AACACAAACA GTGCGAATGT 120
 AGATAGCACA ACAAACCAA TGCTCTACA AACGAGCAAT ACCACTACAA CAGAGCCAGC 180
 10 TTCAACAAAT GAAACACCTC AACCGACGGC nATTAAAAAT CAAGCAACTG CTGCAAAAAT 240
 GCAAGTTCAA ACTGTTCTCTC AAGAAGCnAT TCTCAAGTAG GTTATTAAAA CACGGATGGT 300
 GCTAATAGCT ThGCAACAAC GTGGGCTTTA AAATTCTCCA ACTTTAGTTT T 351

15 (2) INFORMATION FOR SEQ ID NO: 3043:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 319 base pairs
 (B) TYPE: nucleic acid
 20 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3043:

25 ACGnCCtTtAC TGGnTACTTG GTTGATAAGT GTTAATCCAA ATGACGTCCT GCTACGTACA 60
 GCTTTACGAA TATTAAATGC ACGTGTGATA TTTTGAGAAA ATACACGCCC TGGCTAAACC 120
 30 ATACTCAGAA TCATTAGCTA TATCAATTGC TTCTTGATCG TCCTTCACTT TAATCACTGT 180
 TAACACTGGT CCAAAATATT CTTCCTGTGC TAATTGTGA TGATTGTCTG GCACnCAATT 240
 AATGTCGGCT CAAAGAAGAA CCGTTTATCT AATCCATTTT CAGTTAAGCG ATGACGCGCT 300
 35 GCTAAATTTT GTGCATCCG 319

(2) INFORMATION FOR SEQ ID NO: 3044:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 342 base pairs
 40 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3044:

45 GTCATATAAT CTAACATTG TGTTATCTGT TAATTAACTG GnTTTTACCT TAATTGTtTA 50
 CATTGnTCTG TATTAAATCT TTTTGTAACC ATTGTTACT TTTTCAGGTG GAATTTCAC 120
 50 ACCCATGTCA CCAGTGnCA ACCATTAAAC CATCAGACAC TTCAAGAATT TCGCAATAT 180

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AAATTCACGA ATTCTAAAA CATCACTAGG TACGACGTAC GAAACTTGCT GCAATGAAGT 300
CAACATTTTC TTTAATACCG AAACGGATAT CTTGAGCATC TT 342

5 (2) INFORMATION FOR SEQ ID NO: 3045:

- (i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 400 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

15 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3045:

TAATATCATG TTGTGCTTTT AGTGCTTCGG CAATTGTGTT TGTACTTACT GACCCAAACA 60
ATTTACCACC TTCACCAGTT TTGCTGATA CTTCAACTTC AATGTTTGAT AACGTTTCTT 120
20 TTAATGCTTT ACATCTTCAA TTCTTGTTG GCGTCTTGT TTGCAAGTT TTTTCTGTAA 180
CTCTAATTGT TTAAGGTTAC CTGGTGTTGC TTCTACAGCA TAATCTTTT TCAATAAGAA 240
GTTATTGGC ATAACCTACT GGTACTTCIT TAACCTCACC TTTTACCT TTACCTTTAC 300
25 CTTTAACAnC TGTGTAAGAA TTACTTTCAT GCAGnTCACT CCTACTTAA TGITCCGTAA 360
TGCTGTGTT AATGTGCCAA CGCnCTCGA CGTGACACCT 400

30 (2) INFORMATION FOR SEQ ID NO: 3046:

- (i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 306 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

35 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3046:

40 AATCACTGTT TCATTACTTG TTCCAAATCT GnATTCAAAC TATTGTTCAA AGATTCTAAT 60
TCCGCTTTAT TTTTATCTTT AATCGCTTTT GTCATCGCAG CATCTTTAGn CATGCACTTn 120
CTGTGCAAT AGTTTAATTT TAGAACCCGC ATCTTTACTA GCCAATTTCT CTTCATAAGC 180
45 AATTAATGAC TTCGTTAATT GCGAAAGTGT ATCTTTTTGA TTATCATTCG CTTTTCGATC 240
TTCAAGCTTT CTCACATCTG CATTTGACAG CATTACTTGC ACTATTATCT TCAAGCGATA 300
50 ATTCTT 306

(2) INFORMATION FOR SEQ ID NO: 3047:

- (i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 306 base pairs

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(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

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(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3047:

ATGGATCATA TTAGCACGTA AAAGAAAATT CTGTTCAATTA TGAAGAAGTG CCAGAnGTTG	60
AAATTAAACG CACATATGTA TGTGAAGATA TGTCTAAATG TATTTGTTTA TACAACGCAC	120
CTGATGAAGA AGCGGTAnTC GCGCGCGCAA AGCAGTTGAT ACACCGATTG ATGGCATCGA	180
AAAACTTTAA TAAGACAACA AGTTGATGAG ATATATGTAT ATAGGTTTGG CATGGATTTC	240
GATTGCAnTT ATTAGAATAG CTCAATGCTA TAAATGTAAG TAGTTGATAT TGAGGAACTA	300
ATGAAC	306

(2) INFORMATION FOR SEQ ID NO: 3048:

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(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 287 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

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(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3048:

GACAGGCTAC GAGATATTTT AAACAAATTT ACATCAAATC CAGTATTAGG TGTTATTGCA	60
GGTATCGTTG TAACTATTTT AATACAAAGT AGTTCAGGTA CGACATTATC ACAATCGGAC	120
TGGTAAChCT GGATTTATGA CATTGAAACA AGCCATTGGA GTGATAATGG GTGCTAATAT	180
CGGAACAnCG GTAACCTGCAT TTATTATCGG TATAGATTTA GGCGAATATG CAATGCCAAT	240
TTTAGCATTG GGTGCATTCT TGAATCTTTT TCTTTAAACG CTCTAAA	287

(2) INFORMATION FOR SEQ ID NO: 3049:

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(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 371 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

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(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3049:

CATATAAATA GCGnTACATC GCGCCATTCT TGATCTGnAC ATATCTTTCT TAGTCCAAAC	60
CGTGAATGAT TACGTCCATG ATAACGTACA AACGCAATTT CATTTGTGAT TCGATTGACT	120
AAAGGTACAC TGCCATCTTT CACTTGTGGT TCATCAACTA CTGCATGAAT GATTTGATGT	180

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AAITCTACAC ACATTGGAAA GCTTGTAATG CTGCTTACA TACAAATATA TTGATATTTG 300
 TGCATGCAGT CAACCAGCG GAAATGACCA TACCATGCTA ATTTTCTGGT AnGAAGGCCT 360
 5 ACATATCTAA A 371

(2) INFORMATION FOR SEQ ID NO: 3050:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 323 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3050:

CGCCAAATAA AGATAATACA CGTATTGGTG AAGATATAAC TGTAAC TGCA CATATCTTAA 60
 20 TTGATGGCGA AACACGCCG ATTACGAAAA CAGCAACATA TAAAGTAGTA AGAACTGTAC 120
 CGAAACATGT CTTTGAAACA GCCAGAGGTG TTTTATACCC AGGTGTTTCA GATATGTATG 180
 ATGCGAAACA nTATGTTAGG CAGTAAATA ATTCTGTGCG ACAnATGCGC AACATTGAAT 240
 25 TTCCAATTG TTGGAnCATA TGGGCTAACA AGGTGTTTAG GCATATCTAC TCGTCTTATT 300
 GGGTGCAAT GTAAATGGCAA GCA 323

(2) INFORMATION FOR SEQ ID NO: 3051:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 325 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3051:

CCGnACCAAT CGGTTTACAG TTCATTGGTA AACCATTGCG ATGAAAAAAC GTTATATCGT 60
 40 GTCGCTTATC AATATGAAC ACAATACAAT TTACATGACG TTTATGAAAA ATTATAAGGA 120
 GTGAAATCA TGCATTTTGA AACAGTTATA GACTTgnGTT CACGTAGAGT TAAAAACGGA 180
 45 CTCAAAAATG TTTCTCCATC ACCAGCGCAT TThGAGCAGA ACCTAACTCA AATACGAATG 240
 GTATCGCTTA GCATATCCAG TGCTTACCAG TTGTTAATAA CGGTGCGTAG ACGGCGCATGC 300
 50 GTGTGCAAT GCCTAAATAG GAACG 325

(2) INFORMATION FOR SEQ ID NO: 3052:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 400 base pairs

(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

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(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3052:

CTTTTAATCG	CTTGAAACT	ATAGGTAAGA	CAATACAAGT	AGCTACAAAG	CCATATATTA	60
CTGTTAATTG	ACCTATGAAA	AAATATCCGC	TAACGGGTGC	CGTCAATCCT	GGGATAGCAA	120
TACCAATAAA	AAGTACAGTC	CACGAAGGAT	AAACATTTTC	AAGTGAAAAA	TCTTTTAAAT	180
ATTTTATTGA	AAAAATAATC	ATATGCGTCA	TAATTCCAC	AAGGCATAAA	ATCCAATAG	240
CGGTATTAAG	CTATTGTAAA	GTTTGTACT	AAAAAATGTT	TAAATAGTG	TnTAAAAAG	300
CCGGCATGAA	AATGTGTGAC	CTGATGAACT	GAGGCTGTTA	TGTCTTCAC	TTATTAAT	360
TGTCTAGTCT	AAAGGTGATC	CAATCAGAAG	CAAGTCCGCA			400

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(2) INFORMATION FOR SEQ ID NO: 3053:

(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 367 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

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(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3053:

AATGAGATGC	GAAGGATGAT	CAGAGAAAAA	GTCTCTCAAT	CAGGTGTGAA	AGTCAGATGG	60
TTATCACAAC	TTTGGCGTAC	GTTTTCGATA	TAATGCACTA	GGTGATTTAA	ATACGAGCAA	120
TATTGTTTCT	TCAAAAGAAA	GTTTCGGTAT	TACTGAAGTG	TGAAATCTGT	CTCTATGCAT	180
GCCGGATCGA	CATTAGCATT	ACTAATCCAG	AGAAAGCAA	AGGTATTGTG	TATACACCAG	240
AACATTGCCA	GGGAAAAGTA	AATGGTCACA	GCTGTAGAnC	AAGGTATTITA	TAATGGGGGC	300
GGTAAAGCAG	AAGGCCCTTA	TGTAGCATTT	CnTAAAGnTG	GGAAAAGGTA	AAGCAGCAT	360
ATCGGTG						367

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(2) INFORMATION FOR SEQ ID NO: 3054:

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(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 382 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

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(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3054:

5 TnATTtATCT nAGCTCATGA CATGATGGCT GTTCACATTG CAAGGCGTTG ATGAThAAAT 120
 AAGGAAAGGC ATTAGGAAAA AGCCACAGGG AAAACATTTC AGCAGCAGGT TCTTGGAATC 180
 10 ATATATTCAA GTTCAACAAG CGAATGCTGT TAAATTGCCC TTTGGATGAC AATCAATTGG 240
 ATATCGTTTT AAATGAAGCA ATGTTAACAA TGTtACCCAT CGCCATAAAG GAAAAAGCAT 300
 TACGCGAGTA CTACCGAGTC TAAAGCCTGG GGGTATCTGT TAACACATGA TATTGTCATC 360
 15 GTTAATGAAT CACATGCCAC AC 382

(2) INFORMATION FOR SEQ ID NO: 3055:

15 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 316 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

20 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3055:
 CTTAAGATTA GGTGTGCTTA ATTAGTACTG GCTGGGAACG ATAAAGGCAT ATTGCAAAAA 60
 25 ATAGAACATC CATATCCATT AAATGTATTT ACGCTAAATA TTGnCGACTT ATATTTTTAG 120
 ACATAGAGAA GAGACAAGAC AATTTTTAAC GATGCAACGA CAGTTAGGCT GAGGCAGTTA 180
 30 AAACAATAT TTGATACACA TGTGnCAGA TAAAGTCAG TGTTCCCATC AAATGChAAT 240
 TTTGTACTAC TAAAGCTCA GCAGCGCAAC AATTAGGACA ATACGTATAT GAACAAGGGA 300
 TTTAAACCTC GCTTTT 316

(2) INFORMATION FOR SEQ ID NO: 3056:

35 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 380 base pairs
 (B) TYPE: nucleic acid
 40 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

45 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3056:
 GTTCAACATC CGTTTATTTC AATGAAAAAA TCGACAAAAA TGTCGTGAA AACTATGATG 60
 CAACAATAT TCCAACCGT GGTGCATGGT TAGAATATGA AACAGATGCT AAAGATGTTG 120
 50 TATACGTACG TATTGATAGA ACACGTAAC TACCATTAAc AGTATTGTTA CGTGCAATTG 180
 GGTTCTCAAG CGACCAAGAA ATTGTTGACC TTTAAGTGAC AATGAATATT ACGTATACTT 240
 AGAGAAAGAC hGCACTGAAA ACATGACCA GCGTATTAGA ATCATGACGT TACGTCCAGT 300

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CTTAGCAGCG TGGGnCGTAT

380

(2) INFORMATION FOR SEQ ID NO: 3057:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 327 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3057:

TATGTGATGG	ACTTAAAAAA	ACGAACTCAA	TTAATACAAT	GGGCTCAAGA	AAAAGAAGAA	60
CGATTTATTA	TAGAAGATGA	TTATGATTCC	GAGTTTAGAT	ATTTCGGCAA	ACCCATTCCA	120
GCAATTCAGG	GTCTATATTC	AAGAGGAGAA	AAAGTGATTT	ATATCAGTAC	ATTTTGCAAA	180
GTCTATTTT	CCTAGCTGTT	CGAGTTGGCA	TATATGGTGT	TACCCTATTC	TATnTGGAA	240
AAATATCAT	TCTnCAAAA	TCCACCATTG	GAAGGGCAAC	ACTGGTAACC	TGTTTCATAT	300
GGCAAAACCT	TATTGGCAAC	GTTrnAT				327

(2) INFORMATION FOR SEQ ID NO: 3058:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 284 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3058:

CGAAAAAGGA	GAATGAAACA	TGAGGTAATA	CAACATTACA	TGCAACAACA	ATTTATGCGT	60
GTAAGACATA	ATGGAAAGCA	GCTATGGCTG	GAGATGGGCA	AGTAACGCTT	GGTTCAACAA	120
GTTCATCATG	AACAAACGGC	AAGAAAAGTG	CGACGTTTAT	ATGAAGTAAA	TGTTAGCTGG	180
TTTCGCAGTA	TGTAGCAGAT	GGCTTTACTT	ATTTGAAAAA	TTGAAACAA	nATTACAACA	240
GTTTAGTGGT	AACTTAGAAA	GAGCnGCTGT	TGAATTGGCA	CAAG		284

(2) INFORMATION FOR SEQ ID NO: 3059:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 302 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

AAAGAAGCGG ATGAAGAGCT TTGCATTGAG CTCGACCCAG GTATGGCTTT TGGAACAGGT 60
 GATCATCCGA CTACAAGTAT GTGTTTGAAG GCAATAGAAA CATATGTATT GCCACAGCAT 120
 5 TCAGTAATTG ATGTTGGTAC TGGCTCAGGT ATATTAAGTA TTGCAAGTCA TCTAATCGGT 180
 GTAAAACGTA TTAAAGCGTT GGATATTGAT GnaATGGCAG TGAGTGTAGC TAGAAGAnAA 240
 CTTCAGAAGA nATCATTGTG AACGTTGAAT TGGAAAGCTGT TCCAGGTTAA CATATTGGAA 300
 10 AG 302

(2) INFORMATION FOR SEQ ID NO: 3060:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 330 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3060:
 TTTTAAAnGA CACATTGnGC TGTGTTTAAT GCATGAAAGG AACCACTGAC ATGCATnAAA 60
 25 TCTTTGAATG GTTCTTTATC AATTCCTTCC CCCCTCTCAT GTTTGTATC TTTAAATCAA 120
 TATAATTCAA AAAGGGTCGA GGAATGAAA TCACATCTC GACCTTTAT TTAATTTTT 180
 AATTGAGCCA CACGAAACG GTTATTGCT CTCTCTAAG CTCTTTCGGC TCTATGGAAT 240
 30 ATCAGTATTG TCGTCAATCA TTTTCCAAGT GAGACTCTGC TCTTGCTTTG GCTAATTTAG 300
 CTCTTCAAC ATCAATTTCT CTGTCAGTTC 330

(2) INFORMATION FOR SEQ ID NO: 3061:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 301 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3061:
 45 CGATCAATCA ATATAATTCA CGGCGCAAAA CGTTATTTA GCATGTTCTT GCAGACTCTG 60
 AAACGGCAT TAAACCTTCC ATTAAGATTI TTACCATTTCT AGGCATTAAT ACCATTACTG 120
 CAGCCATTGA CATTCCTAAA TTAATGATGT CTCAGGTTT GTAACCTGCT AACACCCAA 180
 50 TACCTAAmCC TAAAAATTAG CCGACAAATA TAGACTCTCC AAATGCGCCA AAACGTTTTT 240
 GAATTGnTTC AGGCACAGCA TCTAACTnAT TCAGACCGGG TACTTTTTGT AACAAATTTAA 300

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(2) INFORMATION FOR SEQ ID NO: 3062:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 350 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3062:

TATAAAATCA ATGATTTTAA CAAATAAAAA CGTACCGCAA ATACTGCAAA TAACAGCAAA	60
TACTAGTTTT AATAAATAT GACCGGTTGG AAAGAACAAT AAAGCAATTA AATACCTAG	120
TTTAGCCCAT TCCATCGTTC CAGCTGTAGT CGGACTAACA AACTTATTTT GCATCATTG	180
TTGGCATTAT CAAGCCTGCT GAAAGCCAAC GAACTCCAG CAATTAATAA ACTCATCGTC	240
CTTGGTATTC GGGCTTGAG AATAAAATGA TTCCGCTGGT GACTCAGTTG AAATGTAGTG	300
AAATCTTTGA ATTGATAGT TnCACTGCAC ACCTGATGGn AnCAACGGAA	350

(2) INFORMATION FOR SEQ ID NO: 3063:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 342 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3063:

TTAGTGATTT TAAOGTGTAT CGGTAATTTT AAATAAATGT TTAATGCTTT TGAAAATACA	60
GTTCTAACCG AAGACGTCGG GTACACTGAA TCACCGGAAA CGCCAAGGTC TTTTATTAAA	120
CCTTGTCAC TATATTGCAT ATACTGTGGA TGCTGTGCA ACACATTGAT TTGATAAGGA	180
TGTGTGGTA ATAAAAATAA ATCTTTGGGT ATCTCTGATA TATCTATGTC TGCTAATGG	240
ATACnCACT TTCTCAACCT GGATCCTTCC TTTTACCTnC CACCATAGCC GCGTGGAnCA	300
GGAAACCATC CTGGATGCA CCAGCCAAAA TAAATGCCAA TT	342

(2) INFORMATION FOR SEQ ID NO: 3064:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 316 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

GTCCAGCTCC AGAACCAAC TTAACAGTAT TATGSTCAGT ACGTTTACCT GACAACTTCA 60
 AAACATACTG TGC AAAAATG AGTATTAAAA CAAGTTCTAT CCAATATGAA AATGATGACA 120
 5 TTATGCGTGA AAGCTATGGC GATGACTATG GTATCGCnTG TTGTGTATCA GCGATGACAA 180
 TTGGTAAACA AATGCAATTC TTCGGTGCAC GTGCGAACTT AGCnAAAAACC TTACTTTACG 240
 CTATCCATGG TGGTAAGATT GAAAATCTGG TGCACAAGTG GGCCCAACCT CCGAGGGGATT 300
 10 nACCAGCGGA GTAATT 316

(2) INFORMATION FOR SEQ ID NO: 3065:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 322 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3065:
 TGATTGCGTG GATCAGCAAC TTCAAAGATT AACAAATAT ATTACTTGGG CAGATAACCG 60
 25 CGCTGCAAAA TATGCAACAG TAATAATGA AGTGCATGAT GGGCAATGCG ATTTACCAGC 120
 GACAAGCAC AnCGGTTTCA TCCTATGTG CCATTAGCGA AGATTTTGG ATGAAACATG 180
 ATGGCCAGAT GTATTTCCAC GTACTGCTAA GTTTGCAGAT ATTA AACAT ACATTCTAT 240
 30 CATTATTGAT ACATATATCA TTGATTATTC CATGGCTTCC GcACAGGGA TGTTAATTAG 300
 AACATAGATT GGAGTGAGGC AT 322

(2) INFORMATION FOR SEQ ID NO: 3066:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 373 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3066:
 45 TATAAGAAT CCTGCCTTAC CTAAGAACAC TTGCTTGTG GTTAAGACTG ACTCTAGACT 60
 CTTATGTTTA TTATCAACCG TTAATAAACT TACCATCAAG AGTGCACCTA CCCATACTGA 120
 CAGTGCACTA TAGAATGGTG TCATACCTGA ACCATAATCC TTAAC TGGA AAACATCAAC 180
 50 AGTCTTCTTA TTAATAGATT GCAATAATAC CGCTGCTTT TCAAAATCAT TCTAnTGGTC 240
 GATTAATGT CGAGCATCA TCTTGCAAT TCTTGAAATT TAITCGCTTT TCAACTTTCA 300

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CACGCTGACA TAC

373

(2) INFORMATION FOR SEQ ID NO: 3067:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 311 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3067:

TTCAGAGTTC	GGAACATAAG	GCGCTACAAT	GTTGTGTTGC	CAGTAGTTGA	CTGAATATGC	60
GTTTGTAACA	AGCTTTTTC	GATTCTAGTC	AACAGTAATT	AAATTTATGA	TATGGGCAAT	120
ACTTGTGAAT	ACTAATATTA	AATGGCGACT	TTAATTCAC	TATGTTATAAG	AGTGCCATTT	180
GTTGATAAAG	GhATACTAA	GGGTATCGIT	TGGAATTTTA	GTAAGTAGAT	ATGTTCCGGT	240
ATAGACCGhA	TTGTGGATAC	GTAATTTTAA	TGChATGAAT	TTTAAATGA	AAACATGACA	300
TTAAATGAAT	C					311

(2) INFORMATION FOR SEQ ID NO: 3068:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 275 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3068:

TATGATTATC	TAGTAAGTAA	ATTGCTGACG	CGCCGAATAC	CGCAAAGAAT	ATAAAGCAAA	60
CTAACGCCGG	GACAAAAAGT	ACACCTAGGA	ATAAATTCTT	TAATCGTACG	TCTTTTGAC	120
ACACGTGCAA	TAAATACCT	ACAAATGGGT	GCCCAGhTA	TCCACCATGG	CCCAGTAAAA	180
GATTGTCCAA	TTTTGTAACC	ATTGGGAATT	TTTGACCACC	TGTCGGAATG	CGTAAACTCA	240
TACTTAAAGA	AATTTCATT	ATAATTACCT	AGACC			275

(2) INFORMATION FOR SEQ ID NO: 3069:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 321 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

AAATGGGTTT TGTGACATTA ACGTCTACAA AAGATGGTTC AGAAGAAACA CACGAGGCTG 60
 ATGGTGTTAT CATCTATATT GGTATGAAAC CATTACAGC GCCATTTAAA GACTTAGGTA 120
 5 TTACAAATGA TGTGGTTAT ATGTGAACAA AAGATGATAT GACAACATCA GTACCAGGTA 180
 TTTTTCGAGC AGGAGATGTT CGCGACAAAG GTTTACGCCA AATTGTCACT GCTACTGGCG 240
 ATGGTAGTAT TGCAGCnCAA GTGCAGGGAA TATATTGACA TTAACGATCA GCCTAAnTCC 300
 10 GAGCnGATTA GATGTGAGCG G 321

(2) INFORMATION FOR SEQ ID NO: 3070:

15 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 400 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

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(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3070:

GTTTGACCTG CATATTGAC AGTCATAACC TTGTATCAC CATTATATTA ATATCAAAAT 60
 25 CTGTGAACGT GTTATTGAG nTGACATTTA ACTTCGAGC ATTATCAGCT GTTGAACCTG 120
 ATGTATACGT TGCAGCAACC ATAACATATCT GTGTTACAAT GCACCAAAAG CACCTCCACC 180
 30 AGCTACATTA GATGGGCAGC TTCGCCTTGC AGCTGATTGG TTTAGATGAT TGTGATACGA 240
 TCCAATTGGA AGCCAAATnG TACTTAAGCA CAATCCTACT GCGGACCGTT TAACCTGTGTT 300
 TCACCTATAC ACTGnTGAAA GGCAAACCGT ACCACTCACC ATTTCCATGC CTTCCATATT 360
 35 TGTTTACCAA ATTTACTTTT CCnGAAAAA TGAAACTCTT 400

(2) INFORMATION FOR SEQ ID NO: 3071:

40 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 266 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

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(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3071:

TGGCCATTG TCATTGCATT TTTACCGTGG GTGTTGATTA TTATTCCTTA CTTACTATT 60
 50 AAATCGGATA CACTAAATAT TATTCATACG GGTGATAATA TTGCACGAGG TCTAGGTGTA 120
 AGGTTAAACA GAGAACGTTT AATATTATTC TTTATCGCAG TGATGTTATC ATCTGCTGCT 180
 GTAGCATAGC AGGTTCAATT TCGTTTATCG GATTAATGGG TCGCATATT GCCAnACGTA 240

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(2) INFORMATION FOR SEQ ID NO: 3072:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 319 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3072:

GACTCCCTGC AGGTCGACGT CTAGAGGATC CCCCCACAGC AATTCACCTA TACATGTAAC 60
 AGTGTGAAAT AATAACGTCA CAACGGCATA ATACACATTG CAACGTCCCA ACAACATATC 120
 ATAGAATCGT AACGGCATGA CATCAACACC AAACCTGGGC TATAACACCA TAACAGCGCA 180
 ACGCCACATC ATAGGCACTA CATCAAGTCG CATCGTAGCA CCAGCACATC AAAGTAACAT 240
 GGGCATCAAC ATCAAACCGG TCTATAACAC CATAACACCG GCAATGCCAC ATTCATAGGC 300
 ACTACATCAA GTCGGCATC 319

(2) INFORMATION FOR SEQ ID NO: 3073:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 282 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3073:

ATATACGCTT ATCAGCTGGA GCTCAATAGA TGGAGGATGA TTATGGSGCT ACCGGTCTGT 60
 TCTATAGCAC TGGTCTATCA GCTATGTGGA TTACAATCGG TTAAACATTA GGTGCTTATA 120
 TAAATTACTT TGTGTGTGCT CCTAGACTTC GTGTTTATAC CGAATTAGCT GGAGATGCAA 180
 TTACATTACC AGATTCTTTT AAAAATCGTT TAAACGATAA AAAAATGTG TTAAGATTAA 240
 TTTCGTGATT GATTATCGTA GTATTCTTTA CATTATATAC nn 282

(2) INFORMATION FOR SEQ ID NO: 3074:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 396 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3074:

AATCGAaAAA TCATGGATGT ACTTGAATCA AATGCAAAACA GCGAAGTGTh TTGAATTGCA 120
 TGGTAGCGTT ATAGACGAGC CAGTAGAAAT TCAATCAATT AAAGTATATG TTCCTAACGA 180
 5 TGATGAAGGT CGTACGACAA CTGTAAATGG TAATGCTTTC CCTGACTCAG AAGTTAAATG 240
 CATTACACCA GCAGATATCA TkGCTTCAAT GAGTTACTTC TTAACTTAT TAAGCGGtAT 300
 TGGGLATACA GATGATATTG GACCATTaGG TAACCGTCGT TTACGTTcTG tAGGkGGaAT 360
 10 TACTACnAAA CCaATTCCGT ATCgGTTTAT CCAAGA 396

(2) INFORMATION FOR SEQ ID NO: 3075:

15 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 376 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

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(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3075:

ACCTACATTG CGAGTTGTCG GTGTATAACC GGCTGGTGTT GAAAACTCTA CACTATAAGT 60
 25 TCCATTGCTT AAACCAAGTA ACTGATATTT ACCATTTTCA TCTGTTGTCG TACGATCTAA 120
 TTCTTTACCG TTACTATCTT TAAGAATGAC ATAAACACCT TTAATCCCTT TTTCATTGGC 180
 30 ATCTTGTTTA CCATCTTTAT TTGTATCTCC CATACATAGT CACCTAGATT ATATTChTTT 240
 GGGCGCCATA GCAGTTGATG AGCATTACCA TTGAAAAACT ATTGACCACT ATATTAGTTT 300
 GCAGTGCTAA GnATAACATT TCCATACGTG ACATACTGAT AGACTGTGAG TGATGTATGC 360
 35 GCTGnTGCTC ATAACG 376

(2) INFORMATION FOR SEQ ID NO: 3076:

40 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 331 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

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(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3076:

TTACATCACC AATTAGACGT TATCTGATT TAACAGTTCA TCGTTTAATC CGTAAGTATT 60
 50 TAATTAGAAA ATCAATGGAT AACAAAGAAG TGAAGCGTTG GGAAGACAAA TTGCTGTAGT 120
 TAGCTGAACA TACTTCTAAA CGTGAACGTC GTGCTATTGA GGCAGAACGT GATACTGATG 180
 AATTGAAAAA AGCAGAATAT ATGATTCAAC ATATTGGTGA TGAATTGAA GGTAAATGTCA 240

55

AAnGChnGnGA TATACGTTTG AGGCGCAATG C

331

(2) INFORMATION FOR SEQ ID NO: 3077:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 345 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3077:

15	AATCATATGC ATCGATTTC AGCAACAGCA ACCATTCATC CTATGTCCCA TTAGCAAATT	60
	TTTGGATGA AACATGAATG GCAAGATGTA TTTCAACGTA CTGCTAATTT GCAGATATTA	120
	AAACATAChT TTCTATCATT ATTGATACAT ATATCATGAT TATTCATGGC TTCCGCAACA	180
20	GGATGTTTAT TTAGAACAAT TAGATTGGGA TGTGAGGCA TAGAACTGCT GGGTATTTCC	240
	AAGGAAATGT TGCCGGAATT ATTCCAACAA CTATTGATGT AAGTATGAAA GAACGTATGC	300
	AACATAATGG GCTAATAAAG TACACCGTnT GTTAATGGTG CnATG	345

(2) INFORMATION FOR SEQ ID NO: 3078:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 400 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3078:

35	GATTATCAAG CGATTGATCA AGTATCATCA TTGTTGAAAG AAAAATATGS CATTGCACAT	60
	TCAACGTTGC AAATTGAAAA CTGCAATTG AATCCATTAG ATGAGCCATA CTTGCACAAA	120
40	TTAACATAAA TAAACATTG TAGCGCCTAA AACATTAAAT TAIGTCATAG GCGCACGTTT	180
	CGTTTTATAC TTATGTTGCA TCAITTTAAAT GATTTTCGTC AATTTCITTTG ATGCTATCTA	240
	CATCTAACAC GAGGTTAACT TGCCTTGATT TTGATAAAGT GATCATAGCT TTTAGTACTT	300
45	GAGGATTTTT ATTGTTGCTG TTACGAATGT GGTGATGTTT AATGCGGGAC AGTAATTAA	360
	GTTGTTTTTT TACAATTGAG AGTGTGATAT TTCGATTCGG	400

(2) INFORMATION FOR SEQ ID NO: 3079:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 319 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3079:

5 AAACGTTTAA TATACACTTT TACACGTCGC CTCATTGAA GCGAATTGCC ATAACCTTCA 60
 CATTATATAT AGTCTTTTCC ATATAAATGT CCAAATTTT AGAACACGC AATAATAAC 120
 CATCCACCTA ACTTATCAAA AATTTAAGTG GATGTTTTT CATTTTCATT TATATTTATA 180
 10 TTAGTGTTAA TCCAATCATA GATTATCTA TATGCACTGC TCTATACaT TCCTCaTTTA 240
 ATTTGCTTA CTTTCATTTA TATCATTATC AGAACACTTG GCGTGTCATC GnTATTATT 300
 CGCATCTTTG AnACGTTTA 319

(2) INFORMATION FOR SEQ ID NO: 3080:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 285 base pairs
 (B) TYPE: nucleic acid
 20 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3080:

25 TCAATGCAT CTAGGnCACa TTATTCTATT TGGGCATTCT TAGTGCTGTT CTTATTTGCG 60
 GCTTTAAGCT CATCTATTTC TTTATTAGAA TTAATGTTT CTAACCTCAC GAAGAATGAC 120
 30 AATACAAAAC GTAAAAAAGT CGCAGTGATC GGTAGTATT TAGTATTAT CATTAGTATT 180
 CCAGCAACCT TATCnTTTG TATCCTAAAA GATGTAAGAT CGTGCGGGA ACGATTTTTG 240
 ATAATAAGGA TTCCACCGTT CGAATGTAAT GAAGCCATAA GCGGG 285

(2) INFORMATION FOR SEQ ID NO: 3081:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 400 base pairs
 40 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3081:

45 ATCATAGCGT TTCCTCTAAA AATTACGATT AATCAAAGTA TGCCATTATT TAACTTTAGT 60
 TTCTTCAGAA ITATTGCCC CATTATCATG TTTTCTCT TTAATAACAG CATTTTTATC 120
 50 ATTTTAAACA AGATACAATT TACCAATTAA TGGGCGTGT GCGTGCTGAT ATGGGTTATA 180
 CTGTTTCACA CGATTTAAGA GAATTACGCG AAGAAGCACA ATTTACACGT ATGGGTCCTG 240

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	CATTCTAATT AAGATAAAGG AGAACGACAA ATATGGGAAA TGGCAAAGGA CCAAGAGTTA	360
	ATCCTTGTCT TAGGACTTTG GTAGGCCAAT ACACCCATTA	400
5	(2) INFORMATION FOR SEQ ID NO: 3082:	
	(i) SEQUENCE CHARACTERISTICS:	
	(A) LENGTH: 248 base pairs	
10	(B) TYPE: nucleic acid	
	(C) STRANDEDNESS: double	
	(D) TOPOLOGY: linear	
15	(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3082:	
	TGAATTTGCT CCAATAAAAA ATACAATTGC CATTAAAATC ACCAGATATT ACAAGTGGCA	60
	ACATGTTAGA AACACCGTTC ATTAAGTGT TATAGAATGC TTTACCTGGG CTTATTTCTT	120
20	GACTGTCAAT TGAGTTACCT GGCAACAAAA GGGTTACGAC TTGTATCTAA TGAATACCAT	180
	CTGCTACTGG ThCTTCTACG ACATTTTTCAT CATCGAnGCG GTCCGCTCTCA ACATGTACAT	240
	CAGCAGCA	248
25	(2) INFORMATION FOR SEQ ID NO: 3083:	
	(i) SEQUENCE CHARACTERISTICS:	
	(A) LENGTH: 368 base pairs	
30	(B) TYPE: nucleic acid	
	(C) STRANDEDNESS: double	
	(D) TOPOLOGY: linear	
35	(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3083:	
	TACTAAAGGT TTAATCAAA AATGGCTAGG TATCGTATTT GCGATTTTAA TTACAATTAC	60
	ATTGTCATTT GTATTTAACA CAGTGCAATC TAATACAATT GCGAGTCGT TAAATACGCA	120
40	ATATAATATT AGTCCAGTAA TCACAGGTAT TATTTTAGCA ATCGTAACAG CTATTATTAT	180
	ATTTGGTGGT GTACGTAGTA TTGCTACGTA TCCTCGTTAA TGTACCGATA TGGCTATCAT	240
	TACATGGTAT GGTTTAGTAA TAATGCTATT AATTTAGACC AATTGTCCnA TGATAGGACG	300
45	ATATAAAAGG CATTGnNACG ACAAGnACTG GTGCGCTGAG GGCTCGTCTC CCAGGACAAC	360
	GGGGTATC	368
50	(2) INFORMATION FOR SEQ ID NO: 3084:	
	(i) SEQUENCE CHARACTERISTICS:	
	(A) LENGTH: 256 base pairs	
55	(B) TYPE: nucleic acid	
	(C) STRANDEDNESS: double	

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3084:

5 TTGGACTTTA TAAAGTTACT AAGTTGTAGA TTATCCTGGT AAAGAAGATA TTGCGGTTGT 60
 ACAAGTTGAA GAAAAATCAA CACAACCAAA AGGTAGAAAA TTCAAAGATT TCACTAGTAA 120
 ATTTAATATA GCATCAGAAG CTAAGAAAAA TGAACCTATA TCAGTCATTG GTTATCCAAA 180
 10 TCCTAATGGA ATAACACAA ATGTATGAAT CAACGGTAA AGTATTATCA GTGAATGGGA 240
 TATAGTGnAT CGGATn 256

(2) INFORMATION FOR SEQ ID NO: 3085:

15 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 311 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 20 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3085:

25 ATATGCATAT GCTTCTTTAG GTGAACGAAT ATCTGGTTCA GATACGATTT CAATTAGCGG 60
 TGTACCTTGA CGGTTCAAGT CAACTAATGA ATACTCCACC TTTATGIGTT GACTTACCAG 120
 CATCTTCTTC CATGTGAAGA CGAGTAATAC CGATTGnTT TGTTCACCG TCGACTTCGA 180
 30 TATCGATATA TCCCATTTCA CCAATTGGGT TGATCAATTG AGAATTGTAT AGCTTTGGGA 240
 TATCGGGATA GAATAGTCTA CGGTCAACTA GATChGGTGC GAnTCCATAT TTAGTGCCAT 300
 GCAGCAGCA T 311

(2) INFORMATION FOR SEQ ID NO: 3086:

35 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 271 base pairs
 40 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3086:

45 ATGTAAATGA TCATCCTTCA TAATAACAAC GATTACTGAT CTGTATCATG ATTTTGAACA 60
 ATAACAACCTG CTTTATTAAT ACCTTGATATA CGCTCGAGnC ATGCCAACCT CTGACAACTC 120
 50 AATCCTAAAC CCTCGAATCT TAACTTGTTT GTCCTTTCGA TATAAATAAT CTATGTTGCC 180
 ATCGGGTAAC AAACGAACGA TATCACCCT TCCTATACAT CAGCTGATTT ATATTGAAT 240

55

(2) INFORMATION FOR SEQ ID NO: 3087:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 256 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

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(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3087:

GTAAAGATT CAATTCACTA TCITTAATA AACTTAATGG TAATTnGTTA TACCAATAA 60
 AGCCTTCTGG ACACCTCCTT TAGACCGACG ACCGCTCTAG CTAATGTCGA TTCCCTGAC 120
 CCTGATTACG CGACAATGCC TAATGTTTCG CTTTTCCTAA TAGCCAAGTT AATATCATAA 180
 CTGCTCGGTA TGGGCTGCCG CTCGGTGATG TGTAATCCAC GCTCCACGCG ATCGATTTTA 240
 ATAAAAATATC ATGGTT 256

(2) INFORMATION FOR SEQ ID NO: 3088:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 337 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

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(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3088:

AAGGTTATTT GAATGATCAA GGTATCCACA AAAGAGGTGC TGAATAGAT CGACTCGTTA 60
 AAGGATGTAC AGGTGTTAAA CGTACAACCTG GACAGCATCC AGGGGGTATT ATTGTAGTAC 120
 CTGATTACAT GGATATTTAT GATTTTACGC CGATACAATA TCCTGCCGAT GATCAAAATT 180
 CAGCATGGAT GACGACACAT TTGATTCCC TTCTnTCAT GATATGTATT AAAACCTGAT 240
 AAACnTGGAC ACGTGATCCC ACCATGATCG ATGCCCTCCAG ATTATCAGGA ATGATCCAAA 300
 ACCATACCTG AGATGTAAGA GTATCAGTAT TAGACnC 337

(2) INFORMATION FOR SEQ ID NO: 3089:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 303 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

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(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3089:

55

AAACATTACT TTACGCTATC AATGGTGGTA AAGATGAAA TCTGGTGAC AAGTTGGTCC 120
 AAACCTCGAA GGTATTAACA GCGAAGTATT AGAATATGCC GAAATTCAAG AATTTGATCA 180
 5 AATGATGGAT TGGCCTAGCA GGTGTTTACA TTAATCATT AAATGTATnA CTACATGCAC 240
 GATAATACAG CTATGACGAT TGAATGGATT ACATGTACAG AATTGTCCGn CCATGGCACA 300
 GGA 303

10 (2) INFORMATION FOR SEQ ID NO: 3090:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 400 base pairs
 (B) TYPE: nucleic acid
 15 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

20 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3090:

CTTTCGTTAA AGGGGCATAT TCATATAATG GATGGTCATT AATAATAATT CCGCCGCGAT 60
 GTGTAGATGT ATGTCTTGGT AAACCTTCTA ACTTTTACA AATACTGAAC CAGCGTTTAT 120
 25 GTCCGATGGT TCGATGTACA AACTCTTAA AATCGTCAAT TTGATATGCT TCATCAAGTG 180
 TAATTCCTAA TKTATGTGGG ATTAAACTTG GAAATTTTAT TLAATGTAACT TTCATCAAAC 240
 CCCATAATTC TTCCAACATC TCTAGCAACT GCTCTTGCAA GCAGATGACC GAAAGTCACA 300
 30 ATTCCAGATA CATGTAGCTC GCCATATTTT TCTTGGACGT ACTGAATGGA CCCTTTCTCG 360
 GnGTGTATCT GCAAGGTCAA TTTTCATTnT CAGGCATGGT 400

35 (2) INFORMATION FOR SEQ ID NO: 3091:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 340 base pairs
 (B) TYPE: nucleic acid
 40 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3091:

45 TTGTTTTTC ACGTTCATn ATTATCTTCA ACTTGTGACT ACAGATTTTA AAATGGAATT 60
 TACAAGTATC TTCTTCAATA TTTTGATCA TGATATCAAA TAATTCATGA CCTTCATTTT 120
 GATAGTCACG TAATGGATT TGTGTGTCAT AAGAACGTAA GTGAATACCT TGACGTAATT 180
 50 GGATCCATGT GTCGATATGG ATCAGTCCAA TGGCTATCAA TAGAACGAGG TAAATCATTA 240
 GCCTCAAACC CCATCCATTG GntCCTCTAA GATACCTTTT GACCTTGGAT AGCnGCTCAA 300

55

(2) INFORMATION FOR SEQ ID NO: 3092:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 400 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3092:

CGACACCTCA	ATAATCATAT	CGTAATGTTT	AACTTTTCCT	GATTIAAATG	TAATTTCAAT	60
TCCATTGATA	GCATTAATTT	CCTCATTTAA	ACGGTATGGA	ATCTCCCGCT	TATCTAATTC	120
ATCAAGTATA	GTTTGATTCA	GTCGGCATCC	ATAATTTATT	TATCTTATCA	GATCGATGAA	180
TAAAGTAGGG	TGTAACCAC	GTTCCATAAA	GATTTCAAGG	AACTCCAATG	GAACATAACC	240
TGCACCTACC	ACCAATACTT	TATCCACTTG	GATTGGCTTG	GAGGAATGGT	CGGATAGGCA	300
TCCAGGGCCT	CCAAAATTC	hAGGGGAAAn	GGTAATATCC	ACCTTCCAAG	GCCAAAGGGCC	360
AATTGGCACC	TGGCCACCCA	GGGnCTTAAA	AAGGGGTTAA			400

(2) INFORMATION FOR SEQ ID NO: 3093:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 252 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3093:

TTATACCCGn	CAAATTCATA	AATATAGTnc	CTTTTCAATA	GATTGATATG	TATGTCTAAA	60
TGTATCGATT	AACTTTGCTA	ATGCTGCTTC	ATCTAATGGT	CGGTCTGCTA	ATTTTAAAAA	120
TGTATTCCTC	AATAGGTATT	CCCATATAAT	GGGTATTTC	TTTAGATGAT	GGTCCGTTA	180
AGCCACATGC	TTTAAATGCA	CTTTGTGTTG	CTACTTCACC	ACATTTTTTC	GTGCTGCCA	240
ACGTACCATC	AA					252

(2) INFORMATION FOR SEQ ID NO: 3094:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 314 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

AATCTATTAA TAATGAAGAA AAAATTGTAC TAGCACGTAG ACGGTTAATA AAGTTCGATA 60
 AAGATATCAG TATTCCATAT ATTCTAAAGC AAGCATATTC TAAAGAAAAA AACAGTTATA 120
 5 TATTCITGTT AGAATCACAA GATTCTATAT TCTTTTCACA AACACCTGnn CAATTAATAA 180
 AGGTCAATAA TAAATCTAT CGACTAAAGC TGTGCAGGTC AATTAAACGG TCACAAGTGA 240
 10 GGCCGAGGTA CAAAAAATGT TGAGCATTTT AAAGTATAAA CTTATCGACA CnTTGTGTG 300
 CAGTTTTCAT GTTT 314

(2) INFORMATION FOR SEQ ID NO: 3095:

15 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 332 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

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(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3095:

GGTGAGGCGG CATTGAGAAA AAATGCTGAA GTAATCGAAG CTGTATCGCA GTCTTGTTCG 60
 25 ACAACAGGAT TTTGTTTATG GTGCCAATTA GCTTTTTCAA CGTATTTAGA AAATGCCACG 120
 CAGCCACATT TAAATAATGA CTTACAACAG CAATTGTTAT CTGGAGAAAT ATTAGGTGCT 180
 ACCGGATTGT CTAATCCCGA TGAAGTCATT TAATGGATT AGAAnAAGTT GGACCCTTTG 240
 30 AAACACCACC TTAATGTTGG ATGGGACCAA TTGGGTGGTC CAGTGGGAnC GTAATGCCCA 300
 GCTGTAAAGT nATAATCCAA GGAAAGACCC AT 332

35 (2) INFORMATION FOR SEQ ID NO: 3096:

40 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 400 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3096:

45 TTTATGCATA CCGCACTCA TCACACTACC GACAACAACA TCATCTTTTC GAGCATATCT 60
 ACTTAACAAC GTCATGACCA CACTCATAAA GAACATAAAA TCAGTAATTT GATGCTTTTC 120
 50 TACATACTTT TGAAGTAGCT GTCTCATTG TTGATTATG TAAATGACAT CATGCTCCAT 180
 TTGTCGGTTT AATAATTGGT CTAACATAnT CTGTCGGGTA AGCCTAAAAT AGGGTACTTC 240
 ATCCTTGAAT TGAGGATACC CATATTGGTC CTAAGGTTCT GTCCATATCC ACGGATGGCG 300

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ATTTAAGGTT GGATAAAGGT GCCGTTAAGG ATCCAATTC

400

(2) INFORMATION FOR SEQ ID NO: 3097:

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- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 265 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

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(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3097:

15 ACTCTGGTCC TTCTGCATAA CTGCCGTAAA TAATTCACCT TCATCACAG CTGTACCTAC 60
 CAATAATCCC nCAGGATATA CGTGGGAATTC GAGGTGTACG GTAGAAATAC TTCACCAATG 120
 ATGCACCTAC AATTTTAAAT AGATTTTAA GACCTTGTTG GTTTGTACA ATTAATGTGA 180
 20 CATGACTAGG TCTTGACAGT TTATATGCAT CTTCACTACT GAGTTTTTTG GTTGATTTnC 240
 GTTATGATTT AATACGGCTA ATTCT 265

(2) INFORMATION FOR SEQ ID NO: 3098:

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- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 321 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

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(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3098:

35 CTAATGTATC AGTTTGGCAT GAATCTTTT GCATCTTTCA ATAATTGTTG TGATCTTTTT 60
 TAGTCACATC ATCAATTTC TTATCTTCGT ATAATGCTTT TTCAATCTTA TGATATCTG 120
 ACCATTCTTT TTCTTTTTTC TCTCTTTCA TATCTGCAAG CGGGCATCCA ATTTTAGGAT 180
 40 CCTAAATCTC CCAAAATGCTT CTGAACTGGT CAGAGGTCA TAATACATAC GACTTTTGGA 240
 TATACGCTTT TnCTTGGGCA TACATTATTT CAATCGTTA CAAATTTTTT TGACCTTTTA 300
 AAATCATTnA CTGTCAnCAG A 321

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(2) INFORMATION FOR SEQ ID NO: 3099:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 276 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

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ATCCGCAATC TGAGAAACAT CATCTTCGAG TTGTTGGAGG GTTCCAAITTT TCAAGTCATA 60
 AATCAGATGA TGAATGGCGA GAGTTTGGAC TAAATCATT TGTATTACCT GAAGTTTATA 120
 5 TTTCACCTGA TAATAATGGG ACATTTTATA CTATACAGT TAAAAGGGAA AGTTTACTG 180
 TTGAGGCATT GAACGATTTA ATGGATTGTT CAACAATATA TCGACATAG AGTGGACGAC 240
 CAATGGGGGA ATACCAGAAT GAGATATTAT AAAACA 276

(2) INFORMATION FOR SEQ ID NO: 3100:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 237 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3100:

GTCATTGAT GACAATGGTA TTAGACCAAG TACCAACCGT TCTGTCCAC nTAAACGTT 60
 GTTAATAACT TGCCGGGCTT CACACTAATC AATGGTGGCA AAGTAGGGGT GTTTAGTCAT 120
 25 GCAAnGTTAA GAACGAGCAT GTTTGATTCA GGAGATAATA AGAACTATCA AGCACAAGGA 180
 AATGTAATTG CATTAGGTCG TATACATGGA ACTGATACGA ATGACCATGG CGATTTT 237

(2) INFORMATION FOR SEQ ID NO: 3101:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 254 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3101:

nCGATATAAC AAGGTTGTTA GACTTAAAGG TGGCGATCCA GCGATATTTG GTCGTGTGCA 60
 AGAAGAAGTC GACATACTAA ATGAACATCA TATTGCGTTT GAAATTGTAC CAGGGGTGAC 120
 ATCAGCGAGC GcNAGTTTGG CTACTATGCA GACAGGTTTG ACAATGCGTA CAGTTGCTAA 180
 45 AAGTGTGGAC ATTTCCTACA GGTCACCTTT AAAGATTGAG AAGAAAATGA AGTGGGATGG 240
 TCCATTCCCT AAGT 254

(2) INFORMATION FOR SEQ ID NO: 3102:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 240 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3102:

CAATCACTCA TGTAGTAATT GATACCTAAG AAGTCGTTTA AATCTTTGGC TGCATCTAAA 60
 5 ATGGCATAAT CTTCAThTGT AATGTTTAAT TTACCGCCAn TAACAGATAA GATATGTTGC 120
 ACACCTTCCA TCGTTTCACG AGTAATACTT ACCTAAATAT GTTGATCTTA AGATGAATTT 180
 10 ATTATGGATG GATATCTTCT AAATTCTGCT GCACGGGACA TCTTCAGSAT TTGGATGGTT 240

(2) INFORMATION FOR SEQ ID NO: 3103:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 328 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3103:

GTGTAAACT TCAATTGTTT AAATAAAATA ACATATCAT TGGAGGTGAA TTGATATGCC 60
 AGATTCAATC ACAATTATAG ATGAAAACAA AGTGGTTGAT GTTGATTAA TTGCAGGTAG 120
 25 AATTTTACTT GAATCAGGTG CTGAACATA TCGAGTTGAA GATACAATGA ACGTATCGC 180
 ACATAGTTAT GGTCTTCATA ATACATATAG TTTTGTCACT TCAACTGCAA TTATTTTTTC 240
 ATTAACGAT CGAACAAAGTA CAAGATTAAAT TCGTTACAAG AGCGTACAAC AGATTTAGGG 300
 30 AAnGTGCGAA TAAGCGGGGn AATTCTTC 328

(2) INFORMATION FOR SEQ ID NO: 3104:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 265 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3104:

TTTGTCTTTG TGCCTAATA ATCTAATGTT CGTGGAAACCG nAACCAGAGA TATTACAAAT 60
 45 ACATCATCGA CTAATCGCAG GTGTCGTGTA TTCTCCAACA ACATGTGCCT GTTTCGCCAG 120
 CTGATTTAAG GCGGCATTGC AAAACTATTG GCCACGAATC CTGAACGTCC TTTCGCCAGCT 180
 ACAAATATAT GTTCAGCATG TAGTATTTTG GATGCAAAAG TGAAAACCTCA TCCGCTTCAA 240
 50 CATGTGACAA AGTCACTTTA ATChA 265

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 243 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

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- (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3105:

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ACTAGTAGAG TATCTAATGG TGATTTAATC ATTATTACTG CTGGTGATACC AACTGGTGAA	60
ACTGGAACTA CTAATATGAT GAAAATCCAC CTAnTTGGTG ACGAAATGC TAATGATCAA	120
nGTATTGGAC GTGGATCAGT TGTTGGTACT ACATTATTGC TGAAACTGTT AAAGATTTAG	180
AAGGTAAGA TTTATCTGAC AAATTGATCG TTACTAACTC AATCGATGAA ACGTTTGTA	240
CCT	243

20

- (2) INFORMATION FOR SEQ ID NO: 3106:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 234 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

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- (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3106:

30

CTATTGCGTT TGGTAAATC TAAAGCAGGC GTAnATTATC AAAGTTTGGG ATATGCAACC	60
AGCACACTTA TTCTTTATGA TTGCAGCGCC AGAAGTGGnG CCCAAACACA TCTAGATGCT	120
TTACTAAGTT GTCTGGTATT TTAATGGATG AAAATGTACG TGAGAAATTA TTACATGCTT	180
CATCACCTGG AAGAAGTACT AGCGATCATA GATGAGGCTG GATGATGAAG TGGA	234

35

- (2) INFORMATION FOR SEQ ID NO: 3107:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 227 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

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- (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3107:

TTTTGAAGCG GCATAATCAT GAAGAATAGG ACTAGGATTA TAACCTTGTA CAGATGATGT	60
CGTTGTAATT GACGCACCG GTTTTAAATA TTCCAATGAC TTTTGAACGT GTCCAAAATA	120
GCGnTAGAn ATTTCGTTCA AATGTTTCTG TAAATGCCTC AGTTGTAAT CCATGAATAT	180

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(2) INFORMATION FOR SEQ ID NO: 3108:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 257 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3108:

CITTAAGTTA CGTTCGGCTT TGATTTAAAGT AAAACGTGGT ACTGTTTCCT ATGACAAGAG 60
 TCTAATTTGA TACAATGTAA ACAAATGGT GHAATTTGTAT TATAGATAAT AACATTGCG 120
 TATACATTCA ACATATCGAT GACCACTTGG ATTAAGCAAC GTAATATCAT TCGTACTGCT 180
 CAAGAAATGA CAAACGAAAT ACGAGAAAAT TTTGAGTCAT ACACGTCATT TAGAATGAAT 240
 AGTATTATGC AAGTACT 257

(2) INFORMATION FOR SEQ ID NO: 3109:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 227 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3109:

CITTAAGCCA AGTCGATCTG CTAATTTTGC AAGTGTCACT GAATCTTGCA ATGCCCTTTTG 60
 TGCATCCTTA CCTTCATCTA TTAAGGCATA GTCTAATACG CTTAATTTHA CCAATCGTC 120
 ATCTCCAAC TTATCTGTG ATGTCAAACC GACATAACAT TTGTAGCGTT CTTAATACCA 180
 TTCCCTCTGC ATATACCCAC GTATATGATA ACGTnTTTCA nTTAACT 227

(2) INFORMATION FOR SEQ ID NO: 3110:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 326 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3110:

TTTCTTCATC GTTTGTGAGA AAGAGGTATT TTTAATTGGG AAAnCAGGTA AAAAGGATGG 60
 AAGTACATAA AAGAGCAAT GCTTGGGCAT TATTCCnCTT GTTATTATT GTGGCGTTGT 120

GATAACGTAA TTGTGCGTTA TTAATGAATC GAAAAGAATC ATTGCTAAAA AGTGAGTCTC 240
 CGAAAGGCGG CCTTCAACTG TTAAGAGTGA TTTATTGCAG GCTTCAATCG CGAAATGGTG 300
 5 CnAAGCGCGT ATTAGCACTA GCCGAA 326

(2) INFORMATION FOR SEQ ID NO: 3111:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 300 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

15 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3111:

CTACGGCGCC TTGCATCTTT CCCAACAATT AACCCCAACT CTATTAGCAC AGATTATATCA 60
 20 ATTGATTCAT AAGCTTCATC AAAGGGTGAA CTAACATGCA TTAACGCTTC TTTAATATCA 120
 ATTAAGTCGG CATGTTCAAC ACCAATTTTC CCTTTTTTAT TTTTAGCTTT TTCTCTATCA 180
 ATATACGCAT GTTTAACACC TTGACATGT TCAGTAAATT GTGACTTCCT AAATTTTTTA 240
 25 TCCTCCCTTG GTGnnGGGGG GGGGGGGGGG GGGGGGGGGG GGGGGGGGGG GGGGGGGGGG 300

(2) INFORMATION FOR SEQ ID NO: 3112:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 358 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

35 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3112:

TTATTGTTAA CACAAGnTT CGAACAAGGT TGGTTTAGTA CATTTTCAAT CATTTGTCTG 60
 40 AGCATTTTAA TCATCACTAC GTTGATATTC ATCATCATCG AACCTGCACA TGAAGTACCT 120
 TTTATTGATT TCTCAGTATT ACGCAACCGT CCGTTCATTG GTGCTATTTT AAATAACTTT 180
 GTTTTAAATA GCGGCTAGC GTAACAGGGT CTTTTCATATA TGCTCAACAC ACCTGGTTTA 240
 45 TCGCGCGCAA TCGACTGTT ACATGCCAAT GCCATGGGCG TTCGAGATCG TTAGTGAAG 300
 CACATAGTTC GGGCAATGAG CCACATGGTC GTGTCCGTCA CGCACACATA TAGCAGCT 358

(2) INFORMATION FOR SEQ ID NO: 3113:

50 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 251 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double

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(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3113:

	TGGTCTTGA AAACCGACAG GGGACTTAAC GGCTGCGGG GGTTCGAATC CCTCTCTCTC	60
5	CGCCATCAAT ATTTATATTA AATTCTATAT ATAATGAAGG TAAGTGCTCA AATTTTGAGT	120
	ATTTACCTTT TTTATTTGTC TTTGAATGGC TCGTAATTTT TGATAATAGA AATGATAAGG	180
10	CATTGAGATT GGAAGGGCAT TTGGCTTGTG CAAnATACAT AGCnAAATGT CGTTGTTGTT	240
	TTGTGATAGA T	251

(2) INFORMATION FOR SEQ ID NO: 3114:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 6591 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3114:

	TTTAAGTGAA TThCTTTGGG TTACAGAAwT TTCAACAAC TTAAGCAAG TATAATGATG	60
25	ATTTTCAGCT TGTAACAAGG AGAAAAAAG AAGACAACCA AGCCAATAA TGGACTGGCC	120
	GCCTAATAAT AAAAaCTCTA AAAGTTGTAT TTTAAAAATA GTTCITTAaA TTATATACCC	180
	ACCACATITG GTGGAGaACC GTTAACAAT GCATAGTTGC TTAaCTTCCA ATATTGAaCT	240
30	CATCATTACA ATTTGACATA GAGTCTATTA AAGCGTGTGC CATTGAGTC CACTTTTATT	300
	TGTATTGTAT AGAGAGAAAT AAAAAGAAAC CTGTTTTTAC AAGGTTTCTA ATACGTTATG	360
	TTATGTAAAT AACAGTTAAT TATACCGGTG GTCGGGGTCG AACCGACACT CCACAAGTGG	420
35	AACGgGATTT TGAGTCCCGC GCGTCTGCCA ATTCCGCCAC ACCGGCTTAA TGGTAAACAA	480
	AAAaCTTCCC TTTGGAAGCA ATTATGGAGC GGAAGATAGG ATTTACACCT ATACCTCGTT	540
40	CCGGGAAGGA ACGTgTCTTA AAAGTTGAAC TACTCCCGCA AATATTAAAT TATGGAGCGG	600
	AAGATAGGAT TTACACCTAT ACCTCATTCC AGGAAGGAAT GTATTCTAAG AGTTGAAATA	660
	CTCCCGCATT ATTATTAAT TATGGAGCGG AAGATAGGAT TTGCACCTAT ACCTCGTTCC	720
45	GGGAAGGAAC GTGTTCTAAA AGTTGAACTA CTCCCGCATA AACCTGGAGG CGGCAACCGG	780
	ATTTGAACCG GTGATAAAGG TTTTGCAGAC CTCTGCCTTA CCACTTGGCT ATGCGCGCAA	840
	TAACTGGGCT AGCTGGATTG GAACCAACGA GTGACGGAGT CAAAGTCCGT TGCCCTTACCG	900
50	CTTGGCTATA GCCCATTAAAT AATAAGGGCG GCTGAAGGGG ATCGAACCTC CGAATGTCCG	960

	CGAACCACAC	CCAAAGGTTT	TGGAGACCTC	TATTCTACCG	TTGAACTATG	CCCCTATTAA	1080
	AAATAATAAA	TGGAGGGGGG	CAGATTGCAA	CTGCCGAACC	CGAAGGAGCG	GATTTCACGT	1140
5	CCGCGCGGTT	TAGCCACTTC	GCTACCCCTC	CATAAATGGT	GCCGGCCAGA	GGACTTGAAC	1200
	CCCCAACCTA	CTGATTACAA	GTCAGTTGCT	CTACCAATTG	AGCTAGGCCG	GCTAAGAAAT	1260
	GGTTCAGGAC	AGAGTCGAAC	TGCCGACACA	TGGAGCTTCA	ATCCATTGCT	CTACCAACTG	1320
10	AGCTACTGAA	CCATAATAAA	AATGTAATGA	TGGCGGTCTC	GACGGGAATC	GAACCGCGA	1380
	TCTCTCGGT	GACAGGCAGG	CGTGTAAACC	GCTACACTAC	GAGACCTATA	AAATATTGCG	1440
15	GGAGGCGGAT	TTGAACCAAC	GACCTTCGGG	TTATGAGCCC	GACGAGCTAC	CGAACTGCTC	1500
	CATCCCGCGA	TAATAAAAAA	TAATGCGGGA	GGAAGAGGGA	TTGGAACCCC	CGCGGCCCGT	1560
	TAAGGCCCTG	TCGGTTITCA	AGACCGATCC	CTTCAGCCGG	ACTTGGGTAT	TCCTCCATTA	1620
20	TTATAGGTAA	ATCGCTATTA	ATTATAAAAT	TAAATGGCGG	TCTCGACGGG	AATCGAACCC	1680
	GCATCTCCT	CGGTGACAGG	CAGGCGTGT	AACCGCTACA	CTACGAGACC	ATTAGTAAAA	1740
	CGGAGGAAGA	GGGATTGCAA	CCCCCGCGAG	CGGTTAAGCC	CCTGTCGGTT	TTCAAGACCG	1800
25	ATCCCTTCAG	CCGGAATTGG	GTATTCTCTC	AAAATTATAT	GGACCTGCAG	GACTCGAACCC	1860
	TGCGACCGAA	CGGTTATGAG	CCGTTAGCTC	TAACCAACTG	AGCTAAAGGT	CCTAAATATA	1920
30	ATTTTACAAC	TAATAAATAG	TGGCGGTGGA	GGGGATCGAA	CCCCCGACCT	CACGGGTATG	1980
	AACCGTACGC	TCTAGCCAGC	TSAGCTACAC	CGCCTTATAT	AGTTTGTAAG	TAATATGGTG	2040
	GAGACTAGCG	GGATCGAACCC	GCTGACCTCC	TGCTGCAAAA	GACGGCGCTC	TCCGAGCTGA	2100
35	GCTAAGCCCC	CATAATAATT	ACAGTATATC	GGGAAGACAG	GATTGGAACC	TGCAGACCCCT	2160
	TGGTCCCAAA	CAAAGTGCTC	TACCAAGCTG	AGCTACTTCC	CGTATAATTA	ACGCGCCCGA	2220
	TAGGAGTCGA	ACCCATAACC	TCTTGATCCG	TAGTCAAAAC	CTCTATCCAA	TTGAGCTACG	2280
40	GGCGCATATG	TTTTTATTGA	AAATGGTGCC	GAGGACCGGA	ATCGAACCGG	TACGGTGTATC	2340
	ACTCACCGCA	GGATTTTAAAG	TCCTGTGCGT	CTGCCAGTTC	CGCCACCCCG	GCACTATAAA	2400
	AATGGAGCAG	AAGACGGGAT	TCGAACCCGC	GACCCCAACC	TTGGCAAGGT	TGTAATTCTAC	2460
45	CGCTGAACCT	CTTCTGCATA	TGCGGGTGAA	GGGAGTCGAA	CCCCCAGGCC	GTAAGGCGCT	2520
	AGATCTTAAG	TCTAGTGCCT	CTGCCAATTC	CGCCACACCC	GCAAAATGGTG	AGCCATAGAG	2580
50	GATTGGAACC	TCTGACCCTC	TGATTAAAAG	TCAGATGCTC	TACCAACTGA	GCTAATGGCT	2640
	CTTCCATGGT	GCCGGCCAGA	GGACTTGAAC	CCCCAACCTA	CTGATTACAA	GTCAGTTGCT	2700
	CTACCAATTG	AGCTAGGCCG	GCAATATGTA	AGAATAAATG	GTGGAGAATG	ACGGGTTCTGA	2760

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	AAACTGCCTG GCAACGTCTT ACTCTAGCGG AACGTAAGTT CGACTACCAT CGACGCTAAG	2880
	GAGCTTAAC TCTGTGTTG GCATGGGAAC AGGTGTGACC TCCTTGCTAT AGTACCACAGA	2940
5	CATATGAATG TAATTATATAC ATTCAAAACT AGATAGTAAG TAAAGtGnA TTTTgtcGCG	3000
	AAAAACATTTA TTTTGATTAA GTCTTCGATC GATTAGTATT CGTCAGCTCC aCATGTCACC	3060
	ATGCTTCCAC CTCGAACCTA TTAACCTCAT CATCTTTGAG GGATCTTTATA AccGAAGTTG	3120
10	GGAAATCTCA TCTTGAGGGG GGCCTTCATGC TTnAgGATtT TCAGCACTTA TCCCGTCCAC	3180
	ACATAGCTAC CGAGCTTATG CnTTGGCAGC ACAAcTGGA CACCAGAGGT ATGTCCATCC	3240
15	CGGTCCTCTC GTACTAAGGA CAGCTCCTCT CAAATTTCCT ACGCCCAcGA CGGATAGGGA	3300
	cCGAACTTcT acGACGTTCT GAACCCAGnC sTGTACCGCT TTAATGGGCG AACAGCCCA	3360
	CCCTTGGGAC CGACTACAGC CCCAGGATGC GATGAGCCGA CATCGAGGTG CCAAACCTCC	3420
20	CCGTCGATGT GAACTCTTGG GGGAGATAAG CCTGTTATCC CCGGGGTAGC TTTTATCCGT	3480
	TGAGCGATGG CCCTTCCATG CGGAACCAACC GGATCACTAA GTCCGTCTTT CGACCCCTGCT	3540
	CGACTTGTAG GTCTCGCAGT CAAGCTCCCT TATGCCTTTA CACTCTATGA ATGATTTCCA	3600
25	ACCATTTCTGA GGGAACTTTT GAGCGCCTCC GTTACCTTTT AGGAGGCGAG CGCCCAAGTC	3660
	AAACTGCCCG CTTGACACTG TCTCCCaCCA CGATAAGTGG TGCGGGTTAG AAAGCCAACA	3720
	CAGCTAGGGT AGTATCCAC CAGCGCCTCC ACGTAAGcTA GCGCTCAGT TTCAAAGGCT	3780
30	CCTACCTATC CTGTACAAGC TGTGCCGAAT TTCAATATCA GGCTACAGTA AAGCTCCACG	3840
	GGGTCTTTC GTCTGTCGC GGGTAACCTG CATCTTCA CA GGTACTATGA TTTCAACGAG	3900
35	TCTCTCGTTG AGACAGTGCC CAAATCGTTA CGCCTTTCGT GCGGGTCGGA ACTTACCCGA	3960
	CAAGGAATTT CGCTACCTTA GGACCGTTFAT AGTTACGCGC GCGCTTACT GGGGCTTCGA	4020
	TTGTAGCTT CGCAGAAncT ArCcACTCCT CTTAACCTTC CAGCACCGGG CAGGCGTCaG	4080
40	cCCTATACAT CACCTTACGG TTTAGCAGAG ACCTGTGTTT TTGATAAAcA GTCGCTTGGG	4140
	CCTATTCACT GCGGCTCTTC TGGCGGTTAA CCCTAAAGAG CACCCCTTCT CCCGAAGTTA	4200
	CGGGGTCAAT TTGCGAGGT CTTTAACGAG AGTTCGCTCG CTCACCTTAG AATTCTCATC	4260
45	TTGACTACTT GTGTGCGTTT GCGGTACGGG CACCTATTTT CTATCTAGAG GCTTTTCTCG	4320
	GCAGTGTGAA ATCAACGACT CGAAGACACA ATGTCTTCTC CCCATCACAG CTCAGCCTTA	4380
50	ACGAGTACCG GATTTGCCTA ATACTCAGCC TTACTGCTTA GACGTGCAAT CCAATCGCAC	4440
	GCTTCGCCTA TCCTACTGCG TCCCCCATC GATTAAACG ATTATAGGTG GTACAGGAAT	4500
	ATCAACCTGT TATCATCGC CTACGCCTGT CGGCTCAGC TTAGGACCCG ACTAACCCAG	4560

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	TTCGCTACTC ACACCGGCAT TCTCACTTCT AAGCGTCCA CATGTCCTTA CGATCATGCT	4680
	TCAACGCCCT TAGAACGCTC TCCTACCATT GTCCAAAGGA CAATcCACAG CTTCGGTAAT	4740
5	ATGTTTAGCC CCGGTACATT TTCGGCGCag TGTCACTCGA CTAGTGAGCT ATTACGCACT	4800
	CTTTAAATGA TGGCTGCTTC TAAGCCAACA TCCTAGTTGT CTGGGCAACG CCACATCCTT	4860
10	TTCCACTTAA CATATATTTT GGGACCTTAG CTGGTGGTCT GGGCTGTTTC CCTTCGAAAC	4920
	ACGGACCTTA TCACCCATGT TCTGACTCCC AAGTTAAATT AATTGGCATT CGAGTTTGT	4980
	CTGAATTCGG TAACCCGAGA GGGGCCCCTC GTCCAAACAG TGCTCTACCT CCAATAATCA	5040
15	TCACCTGAGG CTAGCCCTAA AGCTATTTTC GAGAGAACA GCTATyTCCA GGTTCGATTG	5100
	GAATTTCTCC GCTACCTCA GTTCATCCGC TCACTTTTCa ACGTAAGTCG GTTCGGTCTT	5160
	CCATTCAAGT TTACCTGAAC TTCAACCTGA CCAAGGGTAG ATCACCTGGT TTCGGGTCTA	5220
20	CGACCAAATA CTAACGCCCT TATTCAAGCT CGCTTTCGCT ACGGCTCCAC ATTTACTGCT	5280
	TAACCTTGCA TCAAACTGTA ACTCGCCGGT TCATTCTACA AAAGGCACGC CATCACCCAT	5340
	TAACGGGCTC TGACTACTTG TAAGCACACG GTTTCAGGTT CTATTTCACCT CCCCTTCGG	5400
25	GGTGCTTTTC ACCTTTCCTT CACGGTACTG GTTCACTATC GGTCACTAGA GAGTATTTAG	5460
	CCTTAGGAGA TGGTCTCTCC AGATTCCGAC GGAATTTTAC GTGCTCCGTC GTACTCAGGA	5520
	TCCACTCAAG AGAGACAACA TTTTCGACTA CAGGATTATT ACCTTCTTTG ATTCTATTTT	5580
30	CCAGATGATT CGTCTAATGT CGTCCCTTGT AACTCCGTAT AGAGTGTCTT ACAACCCCAA	5640
	CAAGCAAGCT TGTGTGTTTG GGCTCTTCCC GTTTCGGTCG CCGCTACTAA GGGAAATCGAA	5700
35	TTTTCITTTT CTTCCTCCGG GTACTAAGAT GTTTCAGTTC TCCGGGTGTG CCTTCTGATA	5760
	TGCTATGTAT TCACATATCG ATAACATGAC ATAACCTATG CTGGGTTTCC CCATTGCGAA	5820
	ATCTCTGGAT CAAAGCTTAC TTACAGCTCC CCAAGCATA TCGTCGTTAG TAACTGCTTT	5880
40	CATCGGCTTC TAGTGCCAAg GCATCCACCG TCGGCCCTTA ATAACCTAAT CTATGTTTCC	5940
	ATCTACAGG AAACGGGTTA TTAATCTTGT gaGTGTTCTT TCGAACACTA GCGATTATTT	6000
	CTTATGAATT CAAGCTTATT TAAAACTCTT TATTCACTCG GTTTTGCTTG GTAAAACTA	6060
45	TATTTTACTT ACTTATCTAG TTTTCAATGT ACAATTTCTT TTTAGTCAAG CGCTCGCATA	6120
	AGCAATATCA CTTTAACCAA AAAATATTTG AATGTTAAAT AAACATTCAA AACTGAATAC	6180
50	AATATGTCAC ATTATTCGGC ATCTTCTGAA GAAGATGTTT CGAATATATC CTTAGAAAGG	6240
	AGGTGATCCA GCCGCACCTT CCGATACGGC TACCTTGTTA CGACTTCACC CCAATCATTT	6300
	GTCCACACCT CGACGGCTAG CTCCTAAAAG GTTACTCCAC CGGCTTCGGG TGTTACAAAC	6360

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ATCTACGATT ACTAGCGATT CCAGCTTCAT GTAGTCGAGT TGCAGACTAC AATCCGAACT 6480
 GAGAAACAAT TTATGGGATT TGCTTGaCCT CGCgGGTTCG cTkGCCTTTG TAATGTCCAA 6540
 5 TGTAGCACGT GTGTAGCCAA ATCCATAAGG GGCAATTATGA TTTGACGCAT C 6591

(2) INFORMATION FOR SEQ ID NO: 3115:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 325 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

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(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3115:

GGTGCCAAGC AATAAATATG ACTATGCTCA AACTGAATTA ATGGTGGGTG TGTCGCCATC 60
 20 GTAATTGGAT CGTCTGAAGG CGCATATAAA TGATAGTGCT CTTCGAATAA AGGTAGCATA 120
 TGTAATTGTT TGTGTTTACG TATTTCTGCT GTAAGTTCGG TGAAACCAAT GTCTATATTC 180
 CCATTAAATC GCTATTATAA TGTGTCAGST CCAATAAGCC CCGGATGACA TGTGTATCCA 240
 25 TTTGGAAATG GAACCGTTGG GAAAGTGGGA ATAACATGGG GGAACGTCAN TCCCCnCCAA 300
 GCCCATnGAG GTACCTTTAA TTTTA 325

(2) INFORMATION FOR SEQ ID NO: 3116:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 211 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

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(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3116:

CCGnTTGAGT TCGGTGGCGA CATGATTGAT TTTGTAAGTA AGTATGATGC AACATGGGCT 60
 GnTTTACCTA CTAAAATTGA GCGGGGTACT CCATTAAATTG CTCAGCATT GGGCTTGTC 120
 GAAGCTATTC GCTATTTAGA ACGCATAGGT TTTGATGCAA TTCATAAATA TGAACAAGAA 180
 45 TTAACGATAT ATGCTTATGA GCAATGTCT G 211

(2) INFORMATION FOR SEQ ID NO: 3117:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 210 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

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(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3117:

AACGtntttt GAAATGATTG CGGCGATGTT GCGACAGTT AAAGTAGGTG GCATCTTATA 60
 5 TACCTATCGA TATTGATTTT CCGAATAAAC GACAAGGTGC AATTTTGGAG GATGCTAAAG 120
 TAACTGCAGT CATGTCTTAC GCGGTTGnAA TTGAAACGAC ATTACCAGTC ATTCAATTGG 180
 AAAATGCTAA AGGCTTTGTT GAATCAAAGG 210

(2) INFORMATION FOR SEQ ID NO: 3118:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 225 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3118:

TTAATTGATC CTAGCTTGTT TTGCCTCTGT CACTTTATCA TTGATATTTT GGACAGTTGG 60
 GTTGCCATTC AACACTTGAT TAATTTTCAGT TAACTTTITGA CGCGCTGCTT GTAATTTTTTG 120
 25 GGTGTACGCA TTAAACGAAC GGCCTGCATA CCTGTTGTAT CCGTTGGTTG ATTAATGCTT 180
 GTTCTAAAT: GCGTTTCCAA GTTThAAGCG GCGCTTATCT GGTGT 225

(2) INFORMATION FOR SEQ ID NO: 3119:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 222 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3119:

CCAACATGAT GCTAGTTTGA TTAAGTTTCT TCTAAACAGA CTTCAAACGG CATGGTTTAG 60
 CATATCCTAT TAAGGTTGAA TCGCGTTAAC AGCACATAGG AAATGCTGTT AGGCGATGCA 120
 GAGTGCATTA AGGCAGCTAC TGGAAAATTA TTGTTTGATT TGCCAGTTAT TATAACTGT 180
 45 GTGTGTTGAT GnCgAnCACA ACCCCTCCGA ACACGCTTAA TG 222

(2) INFORMATION FOR SEQ ID NO: 3120:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 246 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3120:

CGGCGATTAT ATTA AAAAGC CAATTACAGA ATGTAGTGGT AATGAAATAT GCCAAGAATG 60
 5 GCTGTATCAC TTAGGTGTAT CAACTGACAA AATTGAAGAC TTAGCAAAAC ATGCATCTAA 120
 TACGATTCTT GTTTATATGC CATATATCAC ATCTTATTTT ATGGACGCGT GCTATCGGGC 180
 nACAGACCTT TTAGTCGTGC CCGGCATGCA ATCTnCAGGA ACTTAGGCAT TTATTGGTGA 240
 10 ACTTTG 246

(2) INFORMATION FOR SEQ ID NO: 3121:

(i) SEQUENCE CHARACTERISTICS:
 15 (A) LENGTH: 399 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3121:

CAAATACCTT CTCAAGnTTG TACTTTTTGC CTAATGAGC TGCACGAATT GCTGCAAGCT 60
 25 ATCCACCAGG ACCTGCTCCG ATTACTATAG aTCTGTTTCA ATTGGGAAAT CTCCAACCTAC 120
 CATGTTTTAC CCGTCCATTA ATAATAATTC TGGATTATTT AATAAACGTT TAATGTGATT 180
 CATGTGATTT TGGCCAGTTG CACCATCAAT TTGTCGTGG TCAAAGCTTA ATGakrtGCT 240
 30 AATACTGGTG CTGCAACAAT TTCTCCATCT TTAACGATAG GTTTTTGAGC AATACGGCCA 300
 ATTCTAAGA TTGCTACTTC TGGGGTGATT GATAACTGGA GTGAACCATT GTCCACCAGC 360
 35 TGAACGATA TTACTGATTG TGCATnnGCA CCTTnCATT 399

(2) INFORMATION FOR SEQ ID NO: 3122:

(i) SEQUENCE CHARACTERISTICS:
 40 (A) LENGTH: 301 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3122:

CAGACAAACC TTGAATTATT CTACCTATAA TTA AAAATGC TGGCAAAGGT GTAATGATGA 60
 50 TGAGTAATGA ACCTACAACA TTTAATATCA ATCTACATA AGTAATTTTG ACGCGACCAA 120
 ATTTATCAGC AACATACCA GCACCTACGT AAACCAACCA GCCAATAAGG CAGATAAGCT 180
 AACAGOGTAT TATCGTTCCT ACGTCACTAC TATATGTGGA TGTATGGGAC ACAGTTTACC 240

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(2) INFORMATION FOR SEQ ID NO: 3123:

- 5 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 378 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

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(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3123:

15 GGAGCAAATT TATCATCTGC AACTAGACAC AACATCACTG TTATTAGTAC CGGGTTATAT 60
 AGTAGCAGTC ATTGTTGGTG CACTAAGTGG TAAATCGGC GAATATCTGA ATTCAAAACC 120
 AGCGATTATC ACAGCAATTA TTTAATAGCA CTGAGCTTGA TTACCTGCA TTGCAGTAGG 180
 20 TAATCATT CAATCTCGTC ATTCTATGAT ATCTTGCACT AGCTTGCTTA ATGATGCACT 240
 TACTACGAGC ATAAACATGT CTATATGCAG GTGCATGTTA TATTATATAT GGCACGAGA 300
 TCGTnGGCn ACGTTAACTA ATTnGCATG TCTAGCCTCG AATTATATAG TAGGAGCGTA 360
 25 GTACGCCAAC TGCCACGA 378

(2) INFORMATION FOR SEQ ID NO: 3124:

- 30 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 251 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

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(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3124:

TATTGCAAGA AATGAACTGC TGATTTTAT AGTTTITAGTG GTCATAAAAT GCTTGACC 60
 40 ACAGGTATTG GCGTATTATT TGGTAAACGT GAGTTACTAC AAAAAATGGA ACCGATTGAG 120
 TTCGGTGGCG ACATGATTGA TTTTGTAAAGT AAGTATGATG CAACATGGGn CTGATTTACC 180
 TACTAAATTT GCAGGTCGGG TTAATCCCAT TGAATTGGCT CCAAGCCAAT TGGGGCTTG 240
 45 CnAGGAAGCC T 251

(2) INFORMATION FOR SEQ ID NO: 3125:

- 50 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 233 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

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(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3125:

CGGTTAAGTA ATACAGGATG TTCTCTAATT ACTTCTTCCA ATACGTCCCA AACTTCATCA 60
 5 TCCATACGTT CGATTTTACT CTTCGCATTT TTAATGTTAG TTGCAATTC ACGTTGAACT 120
 AATTCTTTCA TTACGAATGG TTAAATAGT TCAAGTGCCA TTTCTTTTGG TAAACCACAT 180
 10 TGTACCATT TCCAGCTTG GACCCnACGG CAATTACCTG AACGGTCCCG GAA 233

(2) INFORMATION FOR SEQ ID NO: 3126:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 413 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3126:

AATGATTCC CGGGATTCAA AAGCATGGAT GTTGACCTT GTTGThCTCC ATTGGCAATG 60
 TACTACCTGA TGTCAGATG AATTATCCAT CACTTTGTTG ACGTGCTTIA TTTTACAGCA 120
 25 TCAATTTGAT CCAATCGAAA TACCAGATAA CTTAGACTGT GTCCCAGTAA AATAACGATC 180
 AATCACATCA TGAGACAAGC CAATCGCTTC AAATATTTGT GCCCCTTGAT AACTTTGCAC 240
 TGTCGAAATT CCCATCTTAG CCATTACTTT AATGACACCT TCTGACAATA CATCCGTATA 300
 30 TGTCLTAACA TTATCGACAA CGGTGCCTTG TAACCCCTCT GTCAATGTCA GTTGTTCAAC 360
 GTACGTTGC GCTAGGTATG GCACAATTGa TTCGCGCCAT ATGCGAGTAA ACA 413

(2) INFORMATION FOR SEQ ID NO: 3127:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 209 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3127:

GTCGTAAATA CTGAACAAAA ATCAGCGCAT ACTGTGCAAA TTnTGAAAGA AGCTCAAAAA 60
 CTATTACAAG CACATCATGC GATTGTAGAA GGATATATCG AATCAGCTTT AGAGCGTGCG 120
 50 TAnATCATCT TCTACATACA TAGGTAATTT TATGGCGATT CCTCATGGAG CATCCTGTAA 180
 AAGTTTTAC AATCACATGT GCTTATTTT 209

(2) INFORMATION FOR SEQ ID NO: 3128:

(A) LENGTH: 204 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

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(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3128:

10 TAAATTAATG GAGTTTGTA CACGTCGTCG CAAGAAATTG ATGCAGTGGG GCGCTAGAGC 60
 TGCTTACATC GGGGGCTTTG ATTCTACAAG TAATGTTAGG GCGGGGAAAT TATTTGGTAT 120
 ACCTGTGICT GGTACACATG CACATGCATT TGCCAAACT TATGGAGACC AATATGTTTG 180
 15 CCTTCAAAA ATATGCTGAA AGnC 204

(2) INFORMATION FOR SEQ ID NO: 3129:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 239 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

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(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3129:

GAAATACCAT TAATATAATA GTCGGTAAAT TAAGAAACGT GGTGCGGAT TCACAACAGA 60
 30 AATCTTAACCT TATCGAAGTA TCCTGTTTTC TCTGCAACAC CAATACCAAT CATCACTGCT 120
 AGTACTAAGC CTAATGCGGG AACTCTGAGA AATTTTAAAT CGTATTCTTC TTATCATCGT 180
 AAATCCATCT GGCTATTATA TTTAATATA AAGGTTTGAG CTACCGGATG CTAACGnAC 239

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(2) INFORMATION FOR SEQ ID NO: 3130:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 259 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

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(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3130:

45 ATCACATAAA ACATTTTAAA ATTCTTGTTA TCATAATCAT TAAAGGTAT TAACCTTAAT 60
 AATATATTCT CThGTCTCAA CCTTAATCGT ATACTTCAGA CGTCTGTTTG TAGACAATAA 120
 50 AGTCATTACG GTCTTCATAT GTCATCnAT GTTATCATG ATATGATGAT ATATAATCGG 180
 TATATACTGT AGATATTACA CATAAGAGAG GATATAATAT GAAAAGGTCA TTAAGATGTG 240
 CTGAGAGCTG TGTATCAGT 259

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- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 227 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3131:

TGTGCCTGCC ATTTTGCAAT ATCTTCATCT TCACGTGGTA ATGCACAAAA ATGTTTACCA 60
 TGTGCATTCA CAACITCAAA AATATGTTGA CATGTGATGT TACTTGATCA TCACGCGTTG 120
 CCATGGTATG CAACTGCTGC GATAAATCTG CGGCACCTTC GACTATCATG CTAACCTTCG 180
 CTTGThnATA TCGCAATGGC ATACCCCTTC AACATCTTCT ATCATGG 227

(2) INFORMATION FOR SEQ ID NO: 3132:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 203 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3132:

ATGCGAGTGA TGThATCATC TGCTGCTGTA GChTAGCAGG TTCAATTTC TTTATCGGAT 60
 TAATGGSTCC GCATATTGCC AAACGTATCG TTGGACCACG TCACCAGTTG TATTAACCAA 120
 TTGCCATTTT AGTAGGGGCA TGTATACTTG TAATAGCTGA TACAATTGGC CAAAATTGTA 180
 TTACAACCAG GTGGGGTTCC AGC 203

(2) INFORMATION FOR SEQ ID NO: 3133:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 201 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3133:

AGCATTTAGT TTAGCGGCAG TAGCTGCAGA TGCACCGGTA GCTGGCACAG ATATTACGAA 60
 TCAhTTGACG AATGTCACAG TTGGTAATTGA CTCTGGTACG ACTGTGTATC CGGACCAAGC 120
 AGGTTATGTC AAACGTAATT ATGGTTTTChn AGTGTAAIT CTGCTGTTAA GGTGACACAT 180
 TCAAAATACT GTACCTAAGG A 201

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 207 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3134:

CATTGTGTAAC TGTATTGTT TATAACTTCT GTGTGAAGCG CAATATTACA ATTAAATGTC 60
 CGAAGAGAGT ACCGnCGAAT ATTTCAACAAG TATTAGGAC TTAATCCAT TTCAGCGGT 120
 AATCATCATT CTTATGCAT TAGGATTng TCAATCGCAA CCAGCTTTAA ATCAAAATGT 180
 AGCGGAGGTA TTTTAAATTT ATTCGGT 207

(2) INFORMATION FOR SEQ ID NO: 3135:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 203 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3135:

AACACCTTTA GGTGTCGAG GTCAACCTGT TGAGTTATGT GGTACTTATG TGCTATTAGC 60
 GTCAGAAGGA ATCAAGTTAT ACAACCGGAC AAGTnTTCGG TGTTAGCGGT GGAGTGCAAn 120
 TAGGTTAGGT TTGTATGAGC TTTTAATTGA GCACCATAAT GTTAATTAG TTACTTCAAT 180
 CCATTAAAT AAATGAATTG GTG 203

(2) INFORMATION FOR SEQ ID NO: 3136:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 211 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3136:

CACATCCAAT GcAnTCTACT AAATCAGACA CACCACAATC TCCAACCATA AnACAAGCAC 60
 AAACAGATAT GACTCCTAAA TATGAGGTTT AAGAGCGTAT TATACAAAAC CGAGTTTGTGA 120
 ATTTGAAGC AGTTTGGATT TATGCTCAAA CCATGGACGA CGGTTAGGTT TATGATGTTA 180
 TTCCAATAGG TTCACTATAA ATAGCTTAGT T 211

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 260 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3137:

ATTGGGAAAT GTTCCCCAC CACCTACAAT TTGTGAATAC AAACAATACG TATTGCAATG 60
 GACTTTTACCT GGGCTTACCA AGTGAATGTA TACGTCACGT ATGATACGAT TGTAGTTGnA 120
 AAATAATGCG AACAGAAAT CGTTATAAGT ACAAATAATA CAGGTGACTC AACTCCTGCT 180
 TTTAGATTAA CAAATCTCCA ACCGATACAA TGAGTGCTTG CAACATACCA AGCATTATAA 240
 AGAATCCTGC CTTACCTAAG 260

(2) INFORMATION FOR SEQ ID NO: 3138:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 212 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3138:

CATAAGCAAT TAATGACTTC GTTAATTGCG AAAGTGATC TTTTGTATTA TCATTGCTT 60
 TTGCATCTTC AAGCTTTCTC ACATCTGATT TGACAGCATT ACCTTCACTA TTATCTTCAA 120
 GCGATAATTT CTTAACTGCA CTTACCACTT GCTCAATGC TTCTGCTAT TGTCATTGGA 180
 TATCGGAGTA GTAGGAAGTG CnGAATTCGG CA 212

(2) INFORMATION FOR SEQ ID NO: 3139:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 373 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3139:

TATTGGTTTT TATGCAATA TGGATAATAA AAGGTCTCAC GACATCATTG ATAAATCGCT 60
 TGAATGTTG CGACGCTTAG ATCACAGGGG CGGGTCGGC GCAGATGGCA TCACTGGTGA 120
 TGGCGCAGGT ATTATGACTG AAATACCTTT TGCATTTTTC AAACAACATG TAACGGAGGA 180

GCACCTGTGA GAAAAGAAGG GAAATTACCT CGTGAAGTCA TTCGTTATGA GTATGACCTA 300
 GAATATGGTA CAAATGTTTT AACAAATGGCA CAAAGATGCA ATTGAAACCA GGTnCAACGT 360
 5 GTGTTAnTAC AGG 373

(2) INFORMATION FOR SEQ ID NO: 3140:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 220 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

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(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3140:

AGCCTTATAA TAAAGTGCCT TTCATAGCAA TAAGTTGTGT CCATTGACCT ATTACATTTT 60
 20 TCGTTTGTGA CATTAAATAT AAGAAATACG GTGCACCAAT AATTGTCTAG ACAATACCTG 120
 CTGGAACCCC CACCTGGTTG TAATACCATT TTGGCCATTT GTATCAGCTA TAACAAGTA 180
 ACCnTGCCCC AACTAAAATG GCATTGGGTA AAACACnTG 220

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(2) INFORMATION FOR SEQ ID NO: 3141:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 177 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

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(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3141:

GAGGAGCAGC ACAACCAAT ACACAACCAG CTGGACAAGG TGATCAAGCT GATCCGAATA 60
 ACGCTGCACA ACACAACCTG GAATCAAGC AACACCGGCA AACCAAGCAG GTCAAGGnAA 120
 40 TAACCAAGCA ACACCTAATA ATAATGCAAC ACCGGCAAAT CAAACACAGC CAGCGAT 177

(2) INFORMATION FOR SEQ ID NO: 3142:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 204 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

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(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3142:

CTTTTTTAGC ATTGGTTTA ACAACnGGT GTTGCAATAT CCCCACTTAA GGTCTGTATA 60

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ATTCATTTT TATGTCCTC GATAACTTGT ATTGCTGCTT GTTTCCTCC ATCTGTCAAT 180
 CCATCATTTG ATTGAGAGAA nCAG 204
 (2) INFORMATION FOR SEQ ID NO: 3143:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 279 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3143:
 GTGATGCCAT ATAAATTGGC AATAATGGCA CAAGTACTGT CAGTCAGCA ATGCTATAA 60
 ACTGACTGAG CCATAAAATG CGAAAGTTAC TCGGCCATAT AGACTGATTA ATCATATGTC 120
 ACCATTGGAT TTGTAACGGT AGTTAAACCT GAAGGCATAC TACCCTCCAC CCACTTATTC 180
 AACGTTGGAT nATAGGCAAT GGGTAATTAA AAATTTTGT TTTGAAATGG GCCCACGGGC 240
 TTGTTTAAAT CAAAATTAAA AAATTGTGGT nCTTGGACC 279
 (2) INFORMATION FOR SEQ ID NO: 3144:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 514 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3144:
 TGACTTAATC AAAGCATTTG ATCAAAACAC CAGAATACCA TTATTCTTTA ATATGTTGTA 60
 CAGTAAACTC TnTATTATTT GTTGCTGTTG GATCCATTGT TCGTCTTTCA ACAAAAACnT 120
 GACCCAGAAT GAAGTCCGAT AGAGTCAACA AAGCtATAGT ATTTGTAACC ATCTTTTAGT 180
 TGATaAATGC CACGCGCATC TGTATTGCG TCATTTTTAG GTAcAAATTG AATTtKGAGA 240
 TTTCTCaCaT TATCAGGTAC TTTAAATAAA CGCAAAGTTG GACCGnCTTC AACAGTCTTT 300
 TCAGCAATCG TATCATTAGT ATCAGCATTT TTGATAATAA CAITTTGTTG GCCTTGACCG 360
 TTTTtagTAG TCATTGTATT AAATCAAGGT TAATTcAGAA TTCGATTtTA CTGTTAAATG 420
 TTTCTCGATA CCAATAAAAT CGCATGGTTC ATTCGTATCA GTTCCAGTAT ACGGCCTAAT 480
 GCAATACATT TGCGTGTGcn TGATAGTnCT TATT 514
 (2) INFORMATION FOR SEQ ID NO: 3145:

(A) LENGTH: 302 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

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(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3145:

10 ATTCAGACTT TGCATGTGGA ATGGCCACGT TCATGCCAAT AGCTGTCTGA CTCCCAATTTC 60
 ACGTCTTAGT ATTGCATTTT TTAATGCGA TGTGTGCTCT ACATAACGGC AAATTTTAAAG 120
 TTTTATGAAT CAACATATCC AATGGCTTGG GTTTCGAGAC ATGTCCGTGG ATTCAAGTAAT 180
 15 TAACCATAGT TTGGTTGGAT CCAAACCAT GAGnAGGGTT TAATGGAGGA TGThGAATGG 240
 TTCnCCGGTG GTTAATCCTA CATGGTCCAC CCTCCTGSTA ACCATGGTGG TGGTAATAAC 300
 CC 302

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(2) INFORMATION FOR SEQ ID NO: 3146:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 332 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

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(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3146:

30 CAGGAATAGG ATCATTGCA TCCATAGCTT CACTTATTTT TTCAGAAGCT AGCGTACAAT 60
 CATTTAAATC TACGCCACCT TCATTATCAA TAGAGATTCT AAGAAAATGA TCCTACCCCT 120
 35 CTTTGACCAT ATTCAACGTC TACAAGTTCC AAAATTCAAG GTCTTCCCAT AATTGGGTTT 180
 AACCAATCCA CTTTCTACCT GGTTCCTGGT AAATTTTAC CTCATACCA GGGnCTCTCC 240
 CCTTTTTTGG GCCAAAATAG GAAAAAnGAG GCGGGGGAAA TCCTCCCCC AATTCCnTTC 300
 40 CTGGCCCTGG AGGTTTCCAC CTAATTTTTT TT 332

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(2) INFORMATION FOR SEQ ID NO: 3147:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 204 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

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(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3147:

50 GAGAGTGGTT AACAGCAAA TAGAAATAAT TAAAAATGCA GATGCAGATG CATCGCGGAA 60

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CnCCAAACAAA TGCAGAAGTT GCTGAATTCC AAATGTAACG ATACCTGCCC ATGAGCGATG 180
 TGCTCAGAAT GATCAGAGCT AATG 204

5 (2) INFORMATION FOR SEQ ID NO: 3148:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 217 base pairs
 (B) TYPE: nucleic acid
 10 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

15 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3148:

CAACCGGGAC AGGTGGGGTT ATTGGACGTT ATTTTGGCC TTGGATTIT AAGATATTGG 60
 TCGAAAAGAG ATTACATAAA ATTGTGCCA AATGCGGATT GCATATTATT GTAACGCCGn 120
 20 CTATTGCATT GTTGATTGTT AGGnCTATTA ACTATCTGGA TCTGTATGCC ATTAGCCAGG 180
 TTTTGTTTCA GACAGTTTAG TTTCAGTAGT TAACGGA 217

(2) INFORMATION FOR SEQ ID NO: 3149:

25 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 174 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 30 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3149:

35 CTATTATTAT ATTCCGCGGT GTACGTATAT GTGCTACGTT ATCTTCGTTA ATTGTACCGA 60
 TTATGGCTAT CATTACATT GGTATGGTTT TAGTAATATT GCTATTTAAT TTAGATCAAA 120
 TTGTTCTTAT GATAGTCCAC GATTATTAAa AGTGCAATTG GTCATCGAAC AAGT 174

40 (2) INFORMATION FOR SEQ ID NO: 3150:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 181 base pairs
 (B) TYPE: nucleic acid
 45 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3150:

50 GGGACCGAAT TGACTTCAGC ATTACCAGCA AATTGATTAA TnTTGTGGC TGGTATTGGC 60
 TCTGCGCGTA CCATTACAG GTACCGCACG TTAITAAAGC AACATCAGG GCAATGTTAT 120

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181

(2) INFORMATION FOR SEQ ID NO: 3151:

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- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 172 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

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(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3151:

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GTTTTAATTG AGCGACATAC TCTTCGTGA GCTCTGCTAC TTTTAAAAAT AGAGCGATTG 60
 ACATCAAACA TAACTGCTAA ACGCTCAACG CTGCGCTTCG TAATGGCTTT TGTAGAAATT 120
 CTAACATAAT AATTGGAAT GCTATCATTG GTTGThTCAA CAGCTTGATG CT 172

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(2) INFORMATION FOR SEQ ID NO: 3152:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 209 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

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(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3152:

30

ATGGACGTTG AGACATTIAT AAGCGATATA GATTTCGCAT GTTGCAATTA TTAAACCTAA 60
 TAATGGTAAA CGACAAGTGT GACTGTACTT GGACTTTAAT GAAGGTAGTA ATCAGAATGG 120
 AAATCAACCA AAGTAGGTA TTTGAATHTT GGGGAATAATG AGACATAGCG AGAGTGTATA 180
 TGCAATACGA CAGTACThTA AATTAAGAG 209

35

(2) INFORMATION FOR SEQ ID NO: 3153:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 174 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

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(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3153:

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TTCTCACAAA GCGCTCAGTT GAAGTAAATC CACCTGGACA ATCCAAATGT ACCTGCTTCA 60
 TTGCTAAAG GTTCAATCGT TAAACCTTCC AATAAATTG CTGTTGCTGG ATAAGGAGAA 120
 ATTATIGGTA TATTGTCTTA AATTACTATG ATGCCAATTI AAGGTCTGGA TGAT 174

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(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 267 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3154:

GGATCACATC GTTCATTAC ACAATCTATT AATATTCAAT GGCACAATAT AGTGTTTATG	60
GCATTACGGA TATGATTAG TAGCnCACCA TTATTAACCG ATCTCTATCT GTTAAAAGGA	120
ACTTAAGAGC AATGTTTGGC CATCATCATT TTATGTTGCG TCTTTGCACG AGTTTTGCGA	180
AACTTTACAA TATTTGTTGC GGATGATTAT TTAACTTTGG GAGAATGTTG ATGGCACAGT	240
CCACTATATnC AATCAGTATC GCAATGG	267

(2) INFORMATION FOR SEQ ID NO: 3155:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 490 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3155:

AATTA AAAAT CAAGCAACTG CTGCAAAAAT GCAAGATCAA ACTGTTCTCTC AAGAAGCAAA	60
TTCTCAAGTA GATAATAAAA CAACGAATGA TGCTAATAGC ATAGCAACAA ACAGTGAGCT	120
TAAAAATTCT CAAACATTAG ATTTACCACA ATCATCACCA CAAACGATTT CCAATGGCGA	180
AGGAAGTAGT AAACCAAGTG TTAGAACGAG AGCTGTACGT GTTtAGCTGT TGCTGAACCG	240
GTAGTAAATG CTGCTGATGC TAAAGGTACA AATGTAAATG ATAAAGTTAC GGCAAGTAAT	300
TTCAAGTTAG AAAAGACTAC ATTTGACCCT AATCAAAGTG GTAACACATT TATGGCGGCA	360
AATTTTACAG TGACAGATAA gTGAAAyCAG GGgATTATTT TmCacGagTT ACCAGATatT	420
TAcTGGTAAT GGAGACGTGG GATTATTCTA ATTCAnATAA TACGATGCCA ATTGCAGACA	480
TTAAAGTAC	490

(2) INFORMATION FOR SEQ ID NO: 3156:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 262 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3156:

CCTTCAGTAC CTGTGAATAG TTAAATAAAT GTTCOGATCA TCGTGTAGTG TGATTCATCA 60
 5 TACCGGCCTT TTCAATTGAA TACGATCTAA ACCGTTTCGT CAGGTGCTAG TAAATTACCT 120
 TCGCCACCTA AATAAGAAAGT TCACTCGTTA CGATTTTTTC AGATAGCATC ATTGGTGGAT 180
 10 TCGTAACTTG TGCAACAGCT GTTTAAGTAT TAATAGTGAT TCGGTCGTCT TCACATGCAT 240
 TGCGCACAA TCcHTGCACC GT 262

(2) INFORMATION FOR SEQ ID NO: 3157:

15 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 170 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3157:

ATGGTAAAAA TTGCACTATC TGCTCGGGAA ACGATTTTGC ATAACCTATT GTTAATTTTT 60
 25 TACCTGTTGA TTTAGCTGTA TCTGnCCATT TTTTGAGCTT CTGCTGTCGT TTTAGCCATT 120
 GGGTTTTCAC ACATCACATG TTTACCAGCA TGCAACCTG GCTACAGTAA 170

(2) INFORMATION FOR SEQ ID NO: 3158:

30 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 312 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 35 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3158:

40 CCAGGCAGAG GAGCAGCACA CCAATACACA ACCAGCTGGA CAAGTGATCA GCTGATCGA 60
 ATAACGTGCA CAAGACAACC TGGAATCAAG CAACACCGG AACCAAGCAG GTCAAGGAAT 120
 ACCAAGCAAC ACTAATATAA TGCACACCGG CAAATCAACA CAGCAGCGAA TGTCCAGCAG 180
 45 CAGCGAACCA GCAGCACTGT AGCAGCAACG ACAACTCAGN CCAATGTAGC ATATGGTGAG 240
 GCAGTTTATA GACATACATT GTGnCTTGCA TTCACAGTGG ATAGCAGGTC CACTGTACTG 300
 TACAGTAAGT An 312

(2) INFORMATION FOR SEQ ID NO: 3159:

50 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 171 base pairs

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(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

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(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3159:

AATCACATCA AAACTTCAA TTGTTTAGGT TGGCAACTAA CTTTATGTTA GAACGCACAC 60
AATATCTAAT GTTTAAATC TATGTCGCA AGATGCTTCC TGNTAATTAT CAGTGCCATT 120
TTCGATTGGG TTATACAATC TAGTAATCGC ATGATAATTT AATGCTACAA G 171

(2) INFORMATION FOR SEQ ID NO: 3160:

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(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 211 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

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(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3160:

CTTGTTTCATT TAATCCATAT AGTATACGAC GATGTACTGG TTTTAAACCG TCACGAACAT 60
CTGGCAATGC ACGAGCAACG ATAACACTCA TCGCATAATC TAAAAATGAT TCACGCATTT 120
CACTGGTAAT ATTCGTTCA TTAATCnTGA TTGAGGGAAT TCGGCCCATC CAGAnGTCCC 180
CCCTCCAAAG TTCAGTTCCA CAGGGGCTAG A 211

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(2) INFORMATION FOR SEQ ID NO: 3161:

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(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 321 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

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(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3161:

GCACAGGTAG CGGTAGTGGC GGTGCTATGA TGACTTTGGT AATCTAAAGC AAAATGTACG 60
ATAATAATAA ACGTCGTTTC GTTCTCTGA TGTAGCAGGG GCAGTGAAGA AACAGATTA 120
TTGAATTGTT GATTCTTGA AGATATAAAA ATTCAAGAAT GGGTCTAGGA TTCTTAAGGT 180
GTCTTCTTTT GGGCTCAGTA CGTAAACATA TTGTAGAGCG TGCAGTGAGT GGCGCACCAT 240
CTCTTTTGGG TCAGnTTTG AGTTTTGTTT GTCGGCTGTC GGATnTCGT ATGTAGGAAC 300
GGCTGTTTCACT TnCGTGGAT G 321

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(2) INFORMATION FOR SEQ ID NO: 3162:

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(A) LENGTH: 159 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

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(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3162:

10 AACATTGAG CAATATCAAG AAACATTAGA GTATATTITA TCCCATCATG TAACTCGTAA 60
 TACAGCAATT ATTGCTTTGG GTGGTGGTGC ACTGGTGATT TTGCTGGGTT TATTGCGGCG 120
 ACACTTTITAC GAGGCGTGCA CTTTATACAA GTGCCAnCG 159

15 (2) INFORMATION FOR SEQ ID NO: 3163:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 157 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

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(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3163:

25 GTCAGTTATG GCAAGTGCAT CAACATTTC AGACACAGAC AAGTCTTACG GCATCTTCTA 60
 TTTTAAAGCT TGAATTTAA CAATCATAA GCCGTATGAA TATTTAAATA TGCCACCATG 120
 ATTGAATGCG CCTTTCTAT TAGTTAnGTT TTGTGCG 157

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(2) INFORMATION FOR SEQ ID NO: 3164:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 216 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

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(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3164:

40 TATAAAAATA TAACGGGAC AAAAAAGTGA GTTATTACTG ACAAAGTATn TGAGATTGTA 60
 ACAGGATATA TGAAGCAATA TCAGTTGATC CAACTGTCTAT AGGTATTTC A CAGCAGGnG 120
 45 TTGTTGATGA ACAAAGGCG AAATTGTATA GCAGGCCAAC ATTCCGATTA TAAAGGTATA 180
 ATTTTAAAGGA TTATTAAAT CATGTCTCTT ATGTCA 216

(2) INFORMATION FOR SEQ ID NO: 3165:

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(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 175 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double

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(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3165:

5 AGAAACACTT CTATTGAATC GTCTTACTGC TGTTCCTAT TTATAACACT TCGATTGAA 60
 TGAATTCAAT ATGCCTATTT GACACATTAT TGAAGTTTC CTAATGCCTG GATCCITTTAT 120
 ACGTTACGGC TTCTGCTAT GTTTTGGTAC ATAAAGCTTT GACATATCGA nATTC 175

10 (2) INFORMATION FOR SEQ ID NO: 3166:

(1) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 160 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3166:

20 ACTGTTACAA CAAATTAAAA ATACAACAAG CGAGATATAG TTATTGTTGC TGGAnTGTA 60
 CAAGTAGTAT TCCAAGCGAT GCTATGGCAA ATTGCACAAA TTACAGCACA GACAGGTGCT 120
 25 AAATTAGTAG TCGACGCTGA AAAAGAATTG GGCTGAAAGT 160

(2) INFORMATION FOR SEQ ID NO: 3167:

(1) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 156 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3167:

35 TGTGGGGGAA ACCTGACAG CAAAACTAA AGCTTATCGA TACATCTAAA CATTTGTTAT 60
 40 TAAAAATCAGT GCATCCTAGT CCACTGTCTG CATATAGAGG ATTCTTTGGA TCAAAACCGT 120
 ATTCCAAAGC GAATGCCTAT TTAGCGTCAG TAGGnA 156

(2) INFORMATION FOR SEQ ID NO: 3168:

(1) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 174 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3168:

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GTGGCGAGAA ATACCGCAAG CATAAAGATA TCTTIGATCC AACTTACCAA CAGATCAACG 120
 GAAAAGTACC AGGTAACCAG GAATCAAGAT CCAGACACAG GAAAAGTGAT CGAG 174

(2) INFORMATION FOR SEQ ID NO: 3169:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 213 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3169:

TCAAAACGGG TCAATTCAA ATGGAAAAAT TATACCGCAT CTTCTCCTGA TAACTACGTG 60
 ACCTTATCTT CTTTATATTT GCAGACCACG AACATTCAA CTGCATGCTT GCTCGATTGG 120
 CAATGTCATA TAACTAGTAA CATGATCATC nCATCAAATT TAGTATGTCA AATGTCCCAA 180
 TCAATAATTT GATCGGTGTT GCTCAATTGA TTA 213

(2) INFORMATION FOR SEQ ID NO: 3170:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 380 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3170:

AAAGCACCTT TTCCTAATGA AAGTTGTGCT ACTGGTATCT GTGTTTGATT TACAAAATCT 60
 TCTAATCTT GATGGAGGTG AAAACTGTGA ATTTCATGTC CAGTAATGAT GATAGGCTGC 120
 TTCGCTTGAT GCAGTTTAGT TGCTAATAAC TCTATATATG TTGATGCATC CGTATATTTA 180
 GTTGCCGTCA CTTCAAATGG TGTCGGTATC TCAATTCAG AGATTGCGAC ATCGATTGGT 240
 AAATGTAAAT GAACTGGCG TCCTTCGGCG ATTGCTGTAT TAATTAAACG TGGTATTTCG 300
 GTTGTGTCAT TTTCAGGTGT GATATAACCT GTGCAGnTT ATATGTGCAA ACATTTTTCG 360
 ATAGTCGTCA AATGTACnn 380

(2) INFORMATION FOR SEQ ID NO: 3171:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 401 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3171:

5 TAGAagGTAA GAAGGATCCT ATCGGTGCAA TGGGATATGA TGCGCCAATT GCAGTGTGTA 60
 ACGAGCGACC AGAATCACTA TTTAATTACT TTAACAGCT GTTTGCACAA GTTACGAATC 120
 CACCAATTGA TGCCTATCGT GAAAAAATCG TAACGwGTGA ACTTCTTAT TTAGGTGGCG 180
 10 AAGGTAACCT ACTAGCACCT GACGAAACGG TTTTAGATCG TATTCAATG AAAAGGCCGG 240
 TAITGAATGA ATCACACTTA GCAGCGATTG ATCAGGAACA TTTTAAATT AACTTATTTA 300
 TCAACGGTAT ATGAAGGGGG ATTTGGGAAG ATGCGTTAGA AGCATTAGGC CGAGAAGCAG 360
 15 TGGAAATGCTG TTAAGCAAGG GCGCTCCAAA TTCCTAGTGG T 401

(2) INFORMATION FOR SEQ ID NO: 3172:

(i) SEQUENCE CHARACTERISTICS:

20 (A) LENGTH: 166 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3172:

25 ACATAATTTA AAATAATATT ACATTGTAA TGhCACCAA GTAACGTTTC GGTGTCTGG 60
 30 TGTITTTTGG TATGAATTAC TTTCTGTAC AAAACAATCT AAAGCGTCT GTTATGTTT 120
 ATTAAGATT AATTACAAAC GAAACTAAA TGTAATAGAA TAAACT 166

(2) INFORMATION FOR SEQ ID NO: 3173:

(i) SEQUENCE CHARACTERISTICS:

35 (A) LENGTH: 160 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3173:

45 ATAATGAGAn TGTTGTACGT TATGGTGGTG GAAGTGCTGA TGGTGATTCA GCAGTAAATC 60
 CGAAGAGACC AACTCCAGG ACCGCCGTT GACCCAGAAC CAAGTCCAGA CCCAGAACCA 120
 GAACCAACGA CCAGATACCA GAACCAAGTA CCAGACCCAG 160

(2) INFORMATION FOR SEQ ID NO: 3174:

(i) SEQUENCE CHARACTERISTICS:

50 (A) LENGTH: 158 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3174:

CTTTATATAA AGAAGGAATT ACTAACATA CAGTTAGATT ACTTCATGCA ATCGAATTAG	60
AACGTTTGAA TTTAAGCCGT AGATTAGGTT TTGAATTATC AACAGCnAAA GAATCACGTA	120
TTGAACGGGG GTTATTTAGA ACGTGATAAA GAAGGATG	158

(2) INFORMATION FOR SEQ ID NO: 3175:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 154 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: double

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3175:

TATTGAAGA TGGCTGTGTA CAAAATCGG TGTTACGTGA TCATGATACT GTCAGAATTT	60
ATAAACCATG GCTAACAGCA CATCAGCTTT CATTGCCnA GTATGTCGTC AGAGAAGATA	120
CACCTAATCG CTAATTAATG AGGTTGGAA ACAT	154

(2) INFORMATION FOR SEQ ID NO: 3176:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 472 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: double

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3176:

AGAAGGTATT TTAGCTCAAT CTCAGGTCT AAAGGTTGTT ATTCCTTCAG CCCATACGnT	60
GCGAAAGGTT TATTAATTC TTCTATTAGA AGTAATGACC CAGTCGTATA CTTAGAGCAT	120
ATGAAATTGT ATCGTTCATT CCGTGAAGAA GTACCTGAAG AAGAAATATC AATTGACATT	180
GGTAAGGCTA ATGTGAAAAA AGAAGGTAAT GACATTTCAA TCATCACATA CGGTGCAATG	240
GTTCAAGAAT CAATGAAAGC TGCAGAAGAA CTTGAAAAAG ATGGTTATTTC TGTTGAAGTA	300
ATTGACTTAC GTACTGTTCA ACCAATCGAT GTTGACACAA TTGTAGCTTC AGTTGAAAAA	360
CTGGTCGTGC AGTTGTAGTC AAGAAGCACA CGTCAAGCTG GTGTGGTGC ACAGTTGTAG	420
CTGAATTAGT GACGTGCATC CCTTCATTAG AAnnCTIATG GAAGAGTGCA CA	472

(2) INFORMATION FOR SEQ ID NO: 3177:

(A) LENGTH: 150 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

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(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3177:

10 TGAAGCTGG CGAATACAGT GATTGTCATG ATGCGGATCT AnTTGTCATC TGTGCTGGTG 60
 CTGCACAAAA ACCTGAGAGA AACACGTTTA GATTAGTAT CTA AAAA ACTT GAAAAATATC 120
 AAATCAATTG TTGGTGAAGT AATGGCATCA 150

15 (2) INFORMATION FOR SEQ ID NO: 3178:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 166 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

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(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3178:

25 TTACTCTATC TTGATTGAC GAAATACTAT TanGCTAATA TCGATATTTT AAAAAACGAGA 60
 TGATGTTCCA AAGCAAGCCA TTTCGATGGA CTGCTAATAT TCTTCAGCCA AACGTATCAT 120
 30 TTTACTCGCA TTGGTGAAA AGAAACGGCT GCTATTACAC ATTTAT 166

(2) INFORMATION FOR SEQ ID NO: 3179:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 170 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

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(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3179:

40 CTTGACTCT AGAGGATCCC CGCGCTCAA TTCTAGTGT AGATGATAGT GGATTAGTTG 60
 ATAGCAATGG CTTTGAATG CGATGTTAC TCGCAATAAG TCAATGTCAT CAATTACTTA 120
 45 TTAAAGCAGA TTTACGTATG TCTACAAGTT TanTTGCTA AATCTGGTGA 170

(2) INFORMATION FOR SEQ ID NO: 3180:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 297 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

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(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3180:

AGCTAAGGTT GCCTGGGCG TTGCCCCAnT TGGTTAGTCC AGGTGGTCGC GGTGGCCATC 60
 5 GGTGTATTTCG CCAGGTCCTT CAGGCCAGGT TTTTACTATT ATATCCAGTT GTAGCATTCA 120
 TGATTGGGGC GATTGAGAT AGATTTCATCA ATGAAATTAA TTTCTGGATT TTATTCTGTG 180
 GTATTATTAT TGGTATACAT AAGTATGGTA CATGATAGGC AGATATACAA CATTACAACA 240
 10 TTCATTCTAC TATGCTGGAA ATACATGAC AGTGATGACA CTACTATCCC CGTCGCA 297

(2) INFORMATION FOR SEQ ID NO: 3181:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 349 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3181:

CACTAGGTAC CCCAAAACGC CAGAGGAAGT TGGTTAAATC GCACCTACTT GGTGGCTCCA 60
 25 ATCAACTGGT ACTTCATAAC GTTTGGCATC TTCGCCACTT CACCACTATT ACTCTTTCCA 120
 CCTAATTGGT TCATGGCTTG TGCTAACGTT TCATGTGCTT CCGCTGAAAT CGATCCATAA 180
 CTCATCGCCC CTGTATTAAG GCCTTTGACA ATGTCACCTA CCGGTTCAAC TTGGTCGATG 240
 30 TCAATCGGTG TACATGCTTT AAATTCAAGT AAATGTCTAA TGTGatCTGT TCTATTTTTG 300
 TTnCACCGnT TnCAGAGTAT GCTTTAAATT GCGCCATAGT CCAATTTTCT 349

(2) INFORMATION FOR SEQ ID NO: 3182:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 149 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3182:

TACCAACACG TACACCTTCT AAAATACTG CATTTGACC GThTTAATAC ATCATCCTCG 60
 45 TTTATAACCG GTGTAAAGC TACGGGGGTTT AATCACACCT GCTAATACTG CGCCAGCCCT 120
 ACATGTACAT TTTTACCAGT TGTAGCACG 149

(2) INFORMATION FOR SEQ ID NO: 3183:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 147 base pairs

(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

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(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3183:

GCGGTGCCGG TGTTCGAATT GCGCAGTGG TGTGGTAGC ATGTGGTCTT TCAATCAATG 60
TTCAATACAC CAGGAGATCC GAAAAGATG CGTATGAATT TTATGTAAG TGCACCAGGC 120
ATTACCACAC CACGCAAnAA CATGCAT 147

(2) INFORMATION FOR SEQ ID NO: 3184:

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(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 180 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

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(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3184:

CAGCGATATG TTGGCGTTGA AAATCTGCAA TTGTTCATA ATTCTCTGTT AAAGAACGAC 60
TTAAATGAT AAAATGGAT ACGATCTCTT GGTAAACAGT GACATTTTCT CAATCGCGCT 120
ATGATGTTTG TGGCACCGAC CATOGAGAAC ATGAAATCT CATGTCCAC GCTAGTCGnC 180

30

(2) INFORMATION FOR SEQ ID NO: 3185:

(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 150 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

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(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3185:

GGTAAATACG TATTAATCAG ATTAAGATCT GGTGAAGTTC GTATGATCTT ATCTACTTGG 60
CGGTGTACA ATCGGGNCAA GTTGGTAACC TACAACACGG GTTAGTTAAC GTTGGTAAAG 120
CCGGCACGTT CAAGATGGGA AAGTATCCG 150

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(2) INFORMATION FOR SEQ ID NO: 3186:

(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 146 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

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GAATTThagg TGAATCAGAA GATTAACGCT GTTGGTCCT AAGCTAACAG ATACTGGTTC 60
 GTCAGTGTGC GTTGAAAAG CGAATGAACA ATTAAATAAA ACCGTAAC TC GAGCATTATT 120
 5 AGAGGAAGCT AACCAAGCA GGTITA 146

(2) INFORMATION FOR SEQ ID NO: 3187:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 165 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3187:

AAATGGCGCA GTATGTTGTT ATTGGGTCAG TACTCTGAAA TTAACAATAG nTACGATTGA 60
 20 AAATGGTGTG ATGATTCAA CAGTCGTTG TTAATGATG CTAGTCGTGG TGGGAATACT 120
 AAGGTCGGAC CGTTTGGCA ATTGAGACCA GCGCGCAAT TAGGG 165

(2) INFORMATION FOR SEQ ID NO: 3188:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 166 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3188:

CAGTTTAGTG GAGACGAATC TAAACGAAAC AAAGCGATTG GACGTGCATC AGTTGTACCA 60
 35 ACATTCTTTG GTGTAAACGn AACCAATTTT ATTTGGTGCC ACCACTAGTT ATTGGAATCC 120
 TGTGTTCTTT ATTCATTG TATTAGCACC AATTGTTAAC GTATGG 166

(2) INFORMATION FOR SEQ ID NO: 3189:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 146 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3189:

AACCCCTTAT CTAATCCATT TTCAGTTAAG CGATGACCGC CTGCTAAAAAT TTGTGCATCT 60
 GATTCTTTTG CTGCATCAAT ATATGATTGA ATTTTATCTA ATTGATCCTT ACCAGTTTGA 120

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(2) INFORMATION FOR SEQ ID NO: 3190:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 212 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3190:

TCCCCCAAAG GGTTTAAGGG GTTAACCCGG GTTGGGAAA AATTTTTTAA CCCCCCTTAA 60
 AATTCCCCGGG AAAAAGGAAA CCGGGTTT TTAAAAAAAC CCGGGTTCC CAAAAATTTT 120
 TTGGGAAAGG GAAAGGAAAA AAGGGTTAAA AATTTTTTGG GAAAAACCCG GGCCCAAAAA 180
 AAAGGGTTTT TTCCCTTA AAAAAAATTT AA 212

(2) INFORMATION FOR SEQ ID NO: 3191:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 148 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3191:

CTTCACTGAC TTATGCAATT TCATCACCTT TTGCCCTAC AACGATAGCT AATGATTAT 60
 ATTGTAAACT CAAATGACCT TGTTGAATAC CTCTTGACAC AAGCGCGCGA CATGCTGCAG 120
 AGTTTTGCGC TAAACCAAGC GCAGCAAC 148

(2) INFORMATION FOR SEQ ID NO: 3192:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 212 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3192:

CTGCTAATCC GAAATCTTTT TGGAGTTTAA TTAAACCAGC TGCTTCTAAT AGTTTAAAGTG 60
 CACGTGCTTG GTTTGACACA TCATTGGAA TGACAACCTT AGCnCCATCT TTAACCTTTT 120
 TGACATCTTT AATTTTATCT GCAGAAATAA ATCCATCAGC GATGGCTCTT AAATATATGT 180
 TACGTGATAA TTCTCGAaA AATGGCTTCC CT 212

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 141 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3193:

TCGTGCAGTG GTCTTCTGTT AATTGGTGAA TTGGGATACT GGTATATTC AGCTGCACCG 60
 CAAAGCAACTT CTATTGATGG CCAAACTGCC TTTTACCTC AAGCAATGGG TATGGTAGTT 120
 GTTGCAGTCA TTTATGGCTT T 141

(2) INFORMATION FOR SEQ ID NO: 3194:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 1290 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3194:

AATAACGTTT TGA AAAACGA AGATGTTTTA AATGCCATATA TCCGCGGTGC TGGCGGAATG 60
 GCAGACGCGC TAGGTTGAGG GCCTAGTGGG AGAAATCCCG TGGAGGTTCA AGTCTCTCGC 120
 GCCGCATCAA AATTCTTAAT TTAATAAGC GGGTGTAGTT TAATGGCAA ACCTCAGCCT 180
 TCCAAGCTGA TGTGTGGGT TCGATTCCCA TCACCGCTC CATAGATAAT TTTAATGAAC 240
 ATTGAAAAC TGAATGACAAT ATGTCAACGT TAATCCAAA AACGTAAC TAAGTTACAA 300
 ACATATTATTA GTATTATATGA GCTAATCAA CATCATAATT TTTATGGAGA GTTTGATCCT 360
 GGCTCAGGAT GAACGCTGGC GCGGTGCTTA ATACATGCAA GTCGAGCGAA CGGACGAGAA 420
 GCTTGCTTCT CTGaTGTTAG CGGCGGACGG GTGAGTAACA CGTGgaTAAC CTACCTATAA 480
 GACTGGGATA ACTTCGGGAA ACCGGAGCTA ATACCGGATA ATATTTTGAA CCGCATGGTT 540
 CAAAAGTGAA AGACGGTCTT GCTGTCACTT ATAGATGGAT CCGCGCTGCA TTAGCTAGTT 600
 GGTAAGGTAA CGGCTTACCA AGGCAACGAT GCATAGCGGA CCTGAGAGGG TGATCGGCCA 660
 CACTGGAAC TGAACACGGT CCAGACTCTcT ACGGAGGCA GCAGTAGGGA ATCTTCCGCA 720
 ATGGGCGAAA GcctGACGGA GCAACGCCGC GTGAGTGATG AAGGTCTTCG GATCGTAAAA 780
 CTCTGTTATT AGGGAAGAAC ATATGTGTAA GTAAGTGTGC ACATCTTGAC GGTACCTAAT 840
 CAGAAAGCCA CGGCTAaTAC GTGCCAGCAG CCGCGGTAAT ACGTAGGTGG CAAGCGTTAT 900

CGGCTCAACC GTGGAGGGTC ATTGAAACTT GAAAACTTG AGTGAGAAG AGGAAAGTGG 1020
 AATTCATGT GTAGCGGTGA AATGCGCAGA GATATGGAG AACACCACTG CGGAAGGCGA 1080
 5 CTTTCTGGTC TGTAACGTAC GCTGATGTGC GAAAGCGTGG GGATCAACA GGATTAGATA 1140
 CCTGTGTAGT CCACGCCGTA AACGATGAGT GCTAAGTGT AGGGGGTTTC CGCCCCCTAG 1200
 TGCTGGCATA ACGCATTAAG CACTCCGCCT GGGGAGTACG ACCGCAAGGT TGAAACTCAA 1260
 10 AGGAATTGAC GGGGACCCGC ACAAGCGGTG 1290

(2) INFORMATION FOR SEQ ID NO: 3195:

(i) SEQUENCE CHARACTERISTICS:
 15 (A) LENGTH: 140 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

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(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3195:

TGGTACAGAG TTATCGCTGG TGGTCCTGTT CGTGCCGTAC TTGAATTATC AGGTATCACT 60
 25 GATATCTTAA GTAAATCATT AGGATCAAAC ACACCAATCA ACATGGTTTC TGCTAACAAAT 120
 CGATGGTTTA CnAAACCTTA 140

(2) INFORMATION FOR SEQ ID NO: 3196:

(i) SEQUENCE CHARACTERISTICS:
 30 (A) LENGTH: 145 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 35 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3196:

CTATTGGATC AGGAGGCAAC TACGCTTAAG CGCAGACTGC CCATTGAAAC GCCATGCATC 60
 40 GCATTITGCG CCTGAAGAAA TGGCATATGA GAGCTTGAAA GTAGCGGCTG ATATTGTGT 120
 CTTTACCAAC GntAATATTG TTGTC 145

45

(2) INFORMATION FOR SEQ ID NO: 3197:

(i) SEQUENCE CHARACTERISTICS:
 50 (A) LENGTH: 310 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

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TGTCGAGTGG GAATTGGSACG ATTGAATATC CCATCTCCAT CACTATCAAA GTATGGGAAT 60
 TGAATTGTTT CTAATTCGTA TCCACCTTCT GTCATTGATA ATGTAGGGTT AATTTTAGAA 120
 5 CCATCTKCTG TTTCTAGTIT TAAGTTCAC TTCTTACCTT CTTCCTCAACG TTGACCCATT 180
 GTGCCATTAG GTACTACTAA ACTATCGCTG ATTGCATCAT GAATAACTGG CTTCACCTCn 240
 10 CCTTGCTCTG TTGTTTGACC TAAGTCACTC GCGCTnAAAA ATCGACCCGC TTTATATCCA 300
 TnTTCAGCTG 310

(2) INFORMATION FOR SEQ ID NO: 3198:

15 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 140 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

20

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3198:

TGCTTTATTA ATGCATTGGC TAATAATCCA CTTGTACCAC CACCGGCACA AAGTACTAAG 60
 25 AGGTTTGTTT TGTGATATTT GAAGCTTTAG TGCATCGTCT GATACACCAC TTGCCGCTAA 120
 AATTGAATCA GCITTTnTCG 140

30 (2) INFORMATION FOR SEQ ID NO: 3199:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 184 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 35 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3199:

40 TGGTGATTTC AAATCATGAG ACTGGGACAA AATGATGTTT TCATAAAAAAT TATTTCGTTG 60
 TTCCACTCTC ATGATTTTTT TGATGAACAT AATTACATGA TTGATTGCAT CATTGTGTTA 120
 AACCAGTGAT TGCAACCTGC CATTCACTnG GAAAATTACC TAATAAGTGG CGTATTATCC 180
 45 AGTC 184

(2) INFORMATION FOR SEQ ID NO: 3200:

50 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 163 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

55

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3200:

	TTGAGAAGCG TTTAGGAAGT AACGTTTAAC GACGACAGTC GTTCAATGCG ATCAAAATGT	60
5	TTTAACACAT GAATCGCTCT CGTACTATTG GTGTGTGACA CATGTTCTTC CAGCATTTCG	120
	TTAATGAATG CTTTTCCTTC TTGGTnTTTA ATCTTTGTAA ACG	163

(2) INFORMATION FOR SEQ ID NO: 3201:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 149 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3201:

20	GTTATGTTTG AGACTATAAT GAATAAATAT TTAGAAATAT GACTCCGATT GTTCGATGCT	60
	TAATTCAGTT AGAAGCATCA TAAGAATGCA TGATTACTGG TGTAAAGATA CGTAATGTnT	120
	TGTATTGACT GGATGCTTIT GGATAGAGT	149

(2) INFORMATION FOR SEQ ID NO: 3202:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 192 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3202:

35	CAAGTGACTG AGATTACTGA AGTAAACCG TTACCGCCAC ACTATATTG TCCGAACGT	60
	AAACGAGTG AATTTTCAA TGATGGTTCA GTAGGATCAG ATTGATTAC CTGATAAACG	120
40	TGTGAAnTTG TGGAGGCCAC TATTAAAGAA GACAGAATCC GTTGAACATT TAGATAAGGG	180
	AAAGTCCGAT TC	192

(2) INFORMATION FOR SEQ ID NO: 3203:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 234 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3203:

CGCCATCTAA CGTTTTTTGT ATTGTTTGT GCTGAGCTAG TTGTAAGTGC CnCATTAAGC 120
 ATCTTATAGC GTGATAGCCA TGCGCCAAGC TACAAATCTG CTCGCTATTG TACGCACCAC 180
 5 TAAGCAGTAC ACACCAAGTAA CATTGTATAG CGTTATAGCG CAATATACAG TACA 234

(2) INFORMATION FOR SEQ ID NO: 3204:

10 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 178 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

15

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3204:

AACGCCATAA GCTACATGTA TGCTTCTTGC ATGGTTATCA TCCTCTCTTA ATGACTATCT 60
 20 TTTAATTACG NAATGGCTTA CCAGTTTTTA ACATATGTGC AATTCTTTCA TATGATTTTT 120
 AGATTAGTA GCATAAGCAA TTTCTCCACG TTGATGTACG TGATGTAATG ATTCTGGG 178

25 (2) INFORMATION FOR SEQ ID NO: 3205:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 147 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 30 (D) TOPOLOGY: linear

30

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3205:

35 TATTAATCAC GTTGTGTGCG GTTCGTGTTT TCGCAGTATT GATTGTGTTG TCGCATTAT 60
 GCATTGCATT ATTGTACTGC GTAATTGTAC CTGGCTTTTT ACCTTCAGTG CTTACTGGnT 120
 CATCTAAATG ATTTTATGCT GTGATTA 147

40

(2) INFORMATION FOR SEQ ID NO: 3206:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 133 base pairs
 (B) TYPE: nucleic acid
 45 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

50

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3206:

CAGCTGTACT AGTGTAGCGT ATTATCCAAA ACATTTTACG TGATGGCATT GATGTCGATC 60
 GACTTTCAGT CGTAACGTTT ACAAACCTTAA GCGCACGTCA nATGAAGCAT CGTGTAGACC 120

55

(2) INFORMATION FOR SEQ ID NO: 3207:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 145 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3207:

TAGGGACTTT GAAGCGGAGA GTCTAATGCA TATGGGCAGC ATTATGATCA GCAACTGCTG 60
 AGAAAAATCC AGTTCTAGCT TGGGATTAA ATGTGGAGTG GnTTAATGAA TGCATTAAAG 120
 AGCTGCAAGA ACTTATAAGT GTGCA 145

(2) INFORMATION FOR SEQ ID NO: 3208:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 131 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3208:

AAACGGTTTT AGATCGTATT CAATTGAAAA GGACCGGTAT TGAATGnAAT CACACTTAGC 60
 AGCGATTGAT CAGaACATTT TAAATTAAC TATTATCAA CGGTATATGA AGGGGATTTG 120
 GAAGATGCGT T 131

(2) INFORMATION FOR SEQ ID NO: 3209:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 157 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3209:

ATAAATTITAT CTATAATCTG TTGCTTGTTT TnCTGTCTA CAAGTATTTT CACATTAGGT 60
 CCCGCATCCA TTGTAAATA ACACGGATAC CCCGCTCTC GGCATTCGTG AACACGCGCA 120
 TGACATCATA ACTTCTGCA CAGTAGGAAC GGGGGTG 157

(2) INFORMATION FOR SEQ ID NO: 3210:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 143 base pairs

(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

5

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3210:

AACGTAATAG ATATGGTACT TACTACATGG GAGAGAGTGC TAGATTCACA AACGGCAATC 60
AACCAATCAC AGTAAGAGAA GTGGGGCCAT TCTTATCThG TCCAGTGGGT TATCAGTTCC 120
AACCTGGTGG GTATTGTGAT TAT 143

(2) INFORMATION FOR SEQ ID NO: 3211:

15

(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 137 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

20

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3211:

ATGCATACTG TATGTGTCC AGCATATACA ATTTTgGCCA TCTTTAATGA CAACTGTACC 60
ATTTTTCACA ACATTTAATT CATCTAATTC CTTACCCCTTC AAAGTTTATC TGTTGATCTC 120
GGTAAATTA ATTCTGC 137

30

(2) INFORMATION FOR SEQ ID NO: 3212:

(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 239 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

35

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3212:

ATTCACGCTT TAAAGGACGT AAATACACGA CTAGGCTGTT TACCTTTAGA TCTAAATCAG 60
AACCAITTTT TTACCATGGT GTTCCCTTG AATTAGGAAT TTTATATAAA AATAAGCGGG 120
AAGCGTTGTG CCCGCTTAC TCATAAGCTT TAATTAATGC TAAATAGTCT GACACTAGCG 180
ATTTGATAAA ACTATACTAA AATTATTAG AAGTCACTAA GATGCTAATG ACGACnAT 239

50

(2) INFORMATION FOR SEQ ID NO: 3213:

(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 150 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

55

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3213:

CATCTCAGA GTAGGAATAG CCATACCATC GAATAATTCA CGTACTGTIT CGAATTGAGG 60
 5 TTCAAAATTCT TGAGTTGTAT AGAGCTCGAA AATnTTTGCC CATTAGCATA ATCAGACTTT 120
 TCAAAAGTCT TGATATTGTA TACCCACGCT 150

(2) INFORMATION FOR SEQ ID NO: 3214:

10 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 399 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 15 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3214:

20 CTAAGCATTG GTTTAAACTA ATGTTCAGAG CTTTnTGTTG TTGTAAAnA CAAGTATATT 60
 nCGAGAACAC GTTTTGTAT AGAGTCTCAA TTATAAAAGT TAGAATAGTT GACAACAGTG 120
 TTACGATATT ATTAAACAAC TGTcTATCAT TAACGAAAGC AATTAAACAAG AGTACcTGTT 180
 25 GTGAAATCAT CGTTTAATAG TCAAAGATGA TCATCGTAGG gTAGACAACA TATCaTTGAC 240
 TtaAGGAAGG GGAATGACCG ATGGGATTAA AAGATCAAGC TGTTACCTGG AGAAGGTATT 300
 TTCATCAATT TCCAGAACTA TCCGATAAAG AATTTAAGAC TACACAAAAA ATTAAGATA 360
 30 TTTTAACAGA ACATCATATT AGAATATTAG ACTTACCAC 399

(2) INFORMATION FOR SEQ ID NO: 3215:

35 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 386 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 40 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3215:

CAGGTGAAAG CACAAGAGGA TTTGCTGTTT ATTTCTCTCC TGAAATTAAG AAATTCATTG 60
 45 CAGATAATTT AGATAAATAA TTTAAACTTA GACATTCACC CAATCTGAC AAAATATACT 120
 ATAATAACA TTTATTAATA TATATTGCAT TATTTAATAT GCATCAAAGC CAATCAACGr 180
 50 TTGATTITCA CCAACTCAAT TGTTGATTGG TTTTATTAT GTATGAATGA ACACTTTTT 240
 GACATCATTa AGAATATAAA TGCGTTTGAA AGCATTTGAA AGCnACAACA TTCTATAAA 300
 ATTTTTCaAT AACaATTGCG CCACTAAaAC TCAAAATTTc CACCACCAAC ATCCAaATTA 360

55

(2) INFORMATION FOR SEQ ID NO: 3216:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 153 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3216:

AGTTGCATCA	ACTGAATCCA	ACGCTACGCA	ATACGAATTA	TTCCAATCTG	GCATGCGTGT	60
TGGTAGAGAA	ATTTAGCGA	CATCTCGAGC	ACGGTTTACC	TTGCCTTTnT	TGGTGCCAA	120
CTTGCTTTAT	GCTATGGGTT	TTCAAACCTT	AAA			153

(2) INFORMATION FOR SEQ ID NO: 3217:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 138 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3217:

CTTTGCATAT	TCTGTTTGT	AGTATTCAATG	GTCCGTCAAT	TGTAGACCCA	TCAATTGCAG	60
CCATTACATA	TGCGGAATAT	CGAAGCGAAC	TTCAAGTTGC	TTCAAGCTGG	TAGAACACGC	120
AnATAAAATT	ATTACATC					138

(2) INFORMATION FOR SEQ ID NO: 3218:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 487 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3218:

CACTCCAAC	CAAGGATTTA	CGTGCTTTAT	ATnGAGGTAA	AGCACATCAT	GTKGTTaATT	60
TTATGCMTTT	TaTTGCMcMa	GraTTAaGAG	AAATTTTAgC	nTCTTTAGGT	TTGAAACGTG	120
TAGAAGACTT	AGTTGGAAGA	ACTGATTTAT	TACAACGATC	aTCAACATTA	AAAGCGAATA	180
GCAAAGCGGC	TAGTATTGAT	GTTGAAAAAC	TGTTATGTCC	TTTCGATGGG	CCAAACACAA	240
AAGAAATTCa	ACAAATCAT	AATCTTGAGC	ATGATTTGA	TTTAACAAAT	TTATATGAAG	300

AACAACTGTA TGTAGGGGTT ATTACAGGTA GTGAGATTTC GAAACAATAT GGAGAAGCAG 420
 GACTTCCTGA AAATACAATT AATGTTTATA CGAATGGTCA TGCTGGTCAA AGTTTGCAGC 480
 5 ATATGCA 487

(2) INFORMATION FOR SEQ ID NO: 3219:

10 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 176 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

15

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3219:

ACCAACTCGG AATCATGCAA TGAACCCAT GGTGAAATA AGTGAATTGC ATAAGTATCC 60
 20 TGGCCTGGCA ATGCTGGTAT AACCTAAAC CTGTTGCAC GAAATGTATT CGCTACAATT 120
 AATGTACCTG CAAACCGTT TAATAAGAAG TTCGAAATCG TTGCACCTGT ATATGG 176

(2) INFORMATION FOR SEQ ID NO: 3220:

25 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 203 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 30 (D) TOPOLOGY: linear

30

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3220:

35 CTGATTAGG TAATCTTTGC GCAATTGTTT TTTTACAGTT TCGGCAAATG GGTGCCCGG 60
 CAAATAAATA TTGGCTATGC TCAAACCTGA ATTAATGGTG GGTGTGTCOG CCATCGTAAT 120
 TGGGnCCGCC TGAAGGGCCG CATATAAATG ATAGTGTCTT TCCGAATAAA AGGTAGGCCA 180
 40 TATGTAATTG TTTTGTGGTT ACG 203

(2) INFORMATION FOR SEQ ID NO: 3221:

45 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 361 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

50

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3221:

AGCTAAATCT TGCCAATATG GTATCAACTT TTCATTCCAC TGATAATCAT AAATTCAGA 60

55

GCAATGCCAG AATGTATTA ACAACTGGCA CGTCTAATAG ATTGCTAACG GATTGTTTAC 180
 GTACGTTTCAT CGGCTTCTTT CGCTTCTATC GGATCTGGAG AATTGGGATG TTATGACCAC 240
 5 TGAACCACTT ATTGTGAAGC TCTGTCGTGA TTGACTTCAT AATGCTTGCG CTGnCCCTCA 300
 TTCTAAACAA CTCATCCTAC TTACnAAAT ACCCnGGGG TACACCTGGT CCACTTCATC 360
 A 361

(2) INFORMATION FOR SEQ ID NO: 3222:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 152 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3222:

GGGGCTCCGn GGAGGCAAGG GTAGAAAATG ATGTAAACGC TGCATTACTA GGCGAATTGA 60
 AATTACATCA ATATCAAGCA GAACGGATCT TTTGTATGAC GCTTGGTACA GGCAATGGGG 120
 25 GTGCGTACAA GAATTAATCA AGGTTTCATG TG 152

(2) INFORMATION FOR SEQ ID NO: 3223:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 123 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3223:

TTTGTTAAAT ATAGGCCCTG CAATGAGTGT ACTGGAATGG CAATAATCAT ACCATACAGT 60
 40 AATACATCTC CAACATTGCG CTnAAATCTC TTTCCCATGA CTACCGGTCC TGGGATGTGG 120
 TGG 123

(2) INFORMATION FOR SEQ ID NO: 3224:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 145 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3224:

	TGGTTGGTAA CCGTAAATTA ATGCCTGACA ATGATATTAG CTnCTAAGC ATATTTCTGA	120
	TGATTTAACA CATTATGAAA CGAGA	145
5	(2) INFORMATION FOR SEQ ID NO: 3225:	
	(i) SEQUENCE CHARACTERISTICS:	
	(A) LENGTH: 129 base pairs	
	(B) TYPE: nucleic acid	
10	(C) STRANDEDNESS: double	
	(D) TOPOLOGY: linear	
15	(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3225:	
	GGTATTGTCT AGTCAATTAC TAACACCATT TAATTGTGGn AAGCAAAAGC TAAAGTTAT	60
	CGTGCCTAT TGCAGGCATT GATGCTTCCA ACAAAGTCGA GTATTCAAGT GCATCAAAAG	120
20	TTTGCTTTT	129
	(2) INFORMATION FOR SEQ ID NO: 3226:	
	(i) SEQUENCE CHARACTERISTICS:	
25	(A) LENGTH: 170 base pairs	
	(B) TYPE: nucleic acid	
	(C) STRANDEDNESS: double	
	(D) TOPOLOGY: linear	
30	(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3226:	
	GACACTACCG TTCCCACGTA GCATCAATCG TCTCAGTCGC ATCGTAGTCA TCTGTATGTG	60
35	TTCCAGCATA TACAATTTTG CCATCTTTAA TGACAACGTA CCATTTTCAC AACATTTATT	120
	CATCTAATCC TACCCTCAAA GTTATCGTTG ATTCGTGAAA TAGTCGGCAA	170
	(2) INFORMATION FOR SEQ ID NO: 3227:	
40	(i) SEQUENCE CHARACTERISTICS:	
	(A) LENGTH: 140 base pairs	
	(B) TYPE: nucleic acid	
	(C) STRANDEDNESS: double	
45	(D) TOPOLOGY: linear	
	(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3227:	
50	TTATCTGCTT ACGTTTATCA TTTCTAATT CAnAAATTCG TCATTCAAGT TCAACTTTAT	60
	CGACAGCTGG ACTTTGCGCA GATAAATGTG CTGCTGTAAT ATCTAACACA TCGATTGCTC	120
55	TTATCTGGCA ATAATCGTTG	140

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 120 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3228:

GCGCCTATAA TTGCGCTACT TGATTTAATT GAGTAGATAA ATCTAATCCG AATAAATCCG 60
 TGACTTGCTT GATAAATAGC AACAAATGCTn CAACTAAACC AGTTAGTACT GCTTTGTTTT 120

(2) INFORMATION FOR SEQ ID NO: 3229:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 119 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3229:

GGCTATACAC CGACTACAGT AACATCTGGT AGCGACATTG AAAAAGACTC TAATGGTTTA 60
 ACAACAACAG GTGTTATTAA TGGTGCTGAT AACATGTACA TTAGATAGTG GtttCTACA 119

(2) INFORMATION FOR SEQ ID NO: 3230:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 128 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3230:

TGGGAATAGC AACCAACAAT GCGACAACAA AGCCCGCTAC AAATCTCCAT nAACTAATTG 60
 CTAATGTGTG GAAAAATTTC TCCAGTCAAC AATGAAAGGC CATATGACTT TTTCTACAA 120
 GAGCAGGG 128

(2) INFORMATION FOR SEQ ID NO: 3231:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 123 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(A) LENGTH: 59 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

5

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3360:

10 ACGCGACAAC ACGGCCCTCA ACTAAAGTAG AAGCACCGCA ACAACAGCA AATGCGACA 59

(2) INFORMATION FOR SEQ ID NO: 3361:

(i) SEQUENCE CHARACTERISTICS:

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(A) LENGTH: 66 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

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(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3361:

GATTTGATCG AATTGAACGA ACATTGCTT CTCAAACGAT TGCATCTATT AAAGAAGTAT 60

25

GTCTAG 66

(2) INFORMATION FOR SEQ ID NO: 3362:

(i) SEQUENCE CHARACTERISTICS:

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(A) LENGTH: 58 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

35

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3362:

GGTTGCACAT CTTTACTAC AAATTCGCT GGTAAGATG TTGCAAAAGT ATGTCCGT 58

40

(2) INFORMATION FOR SEQ ID NO: 3363:

(i) SEQUENCE CHARACTERISTICS:

45

(A) LENGTH: 58 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3363:

50 CCTTGAAACG GCAACATTT TGGGTCCTTC TCCATCATTT TATTTAAAG CGCATTAT 58

(2) INFORMATION FOR SEQ ID NO: 3364:

(i) SEQUENCE CHARACTERISTICS:

55

(A) LENGTH: 58 base pairs

(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

5

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3364:

TTGAGAATTT AGGAGGTTAA TCGTTGATT AAAAGTGGCA AAGCACGTGC ACATACGA 58

10

(2) INFORMATION FOR SEQ ID NO: 3365:

(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 58 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

15

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3365:

20

TTTTTTTTT TTTGGATAA AGGAGCAAAC AAATGGATAT TAATGGAAA TTGAGATT 58

(2) INFORMATION FOR SEQ ID NO: 3366:

(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 58 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

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(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3366:

35

ATTCATCGGT AATGACATTA TTTTACTTT GTAATTTCAG TAACAGTTGA TCATCATG 58

(2) INFORMATION FOR SEQ ID NO: 3367:

(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 58 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

40

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3367:

45

TAAATTAAACA GCCGGATGAA ATGAAAGGTG CTACATGCAC AATCAGTAAT ATCGGTTT 58

(2) INFORMATION FOR SEQ ID NO: 3368:

(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 58 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

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(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3368:

5 TACCTACTGG TGAGATTGGC GAACCTGCAA TTAAGGCTAA AAATGTCACG CCAGGATA 58

(2) INFORMATION FOR SEQ ID NO: 3369:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 58 base pairs

(B) TYPE: nucleic acid

10 (C) STRANDEDNESS: double

(D) TOPOLOGY: linear

15 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3369:

TTAAACGGAG AAGGCTTTAC TTTACATGTT GAGGAAGGTC AAGAAGTTAA ACAAGGTG 58

(2) INFORMATION FOR SEQ ID NO: 3370:

20 (i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 68 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: double

25 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3370:

30 CTGCTAAACT ACGTGATTAT AATGAAACAC ATCATGTCCTT TGTCTGGTAT ATGTAAATGA 60

TTGACGGC 68

(2) INFORMATION FOR SEQ ID NO: 3371:

35 (i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 399 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: double

40 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3371:

45 ATTACCAACA GCGAAAATAT TGAAAAGCTG TAAAAAAGCT GGTGCAsmCm TACTTGGATT 60

GAGAAATTAG GAGGTTAATG CGTTGATTAA AAGTGGCAAA GCACGTGCAC ATACGAATAT 120

TGCACTTATA AAATATTGGG GTAAAAAAGA TGAAGCACTA ATCATTCCAA TGAATAATAG 180

50 CATATCTGTT ACATTAGAAA AATTTTACAC TGAACGAAA kCACTTTTAA CGACCAGTTA 240

ACACAGGATC AATTTTGTTT GAATGGTGAA AAGGTTAGTG GCAAAGAATT AGAGAAAAAT 300

TCAAAATATA TGGATATTGT CAGAAaTAGA GCTGGCATCG ATTGGTATGC AGAAATTGAA 360

55

(2) INFORMATION FOR SEQ ID NO: 3372:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 58 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: double
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3372:

ATTTCACAA CTTTAAAGCA CGTATAATGA TGATTTTCAG ACTTGTACAA AGGAGAAA

58

(2) INFORMATION FOR SEQ ID NO: 3373:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 57 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: double
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3373:

AAACCGAGCA GCGCAGTAAA CCTGCAGTAC CTTATCGCT TCTAGATAAT CCGATTG

57

(2) INFORMATION FOR SEQ ID NO: 3374:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 57 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: double
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3374:

AGTACGAATA TTACCTTTAT TTAATGGGTG AGCTAAGTGA CTTTTCATTT CTTCGTG

57

(2) INFORMATION FOR SEQ ID NO: 3375:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 70 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: double
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3375:

GGTGAAGTAT AACTTTGTAA TGGCAGCGCA CTTAATGACT GCCAATAATT GTGACCAACA

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ACTAACAGAC

70

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 57 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3376:
 TTCCAAACCT CATTAGTGA TAGCTTTAAT TTCAAGGCTG GCAATCGCCA TAACAAG

(2) INFORMATION FOR SEQ ID NO: 3377:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 70 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3377:
 TCCTTCAAAG TCAATGGATT TGATCCTCAG AGGACTCAGT GTATCCTCCA AGTGACCTGG
 CTCGCATCCA

(2) INFORMATION FOR SEQ ID NO: 3378:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 56 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3378:
 ATGAATCATT AAGCCTTTTCG GTGCATATGC TGCAAGACTT TGACCAGCAT GACCAT

(2) INFORMATION FOR SEQ ID NO: 3379:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 56 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3379:
 CCAACGACTG CGCCAATATT AATTGTTGCG CCATCATAA CGACAGCACC ATCTTC

(2) INFORMATION FOR SEQ ID NO: 3380:

- (A) LENGTH: 57 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: double
- (D) TOPOLOGY: linear

5

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3380:

10 ACAAAAGCAT CAAGCTGTTG AAACAATCAA TGATAGCATT CGAGATTATT TAGTTAG 57

(2) INFORMATION FOR SEQ ID NO: 3381:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 56 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: double
- (D) TOPOLOGY: linear

15

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(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3381:

CATATAGTTT TGCTCACTAC CATAACCTGC ATCAGCTACA AATAACCGAA GTATTT 56

(2) INFORMATION FOR SEQ ID NO: 3382:

25

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 105 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: double
- (D) TOPOLOGY: linear

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(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3382:

35 GAACACACAG GCAACCCAAA GCAGTGACGG CGAAAnTTGG ATTGATCTTG CAGCATTGAA 60

GAAGATCGCG ATGACTATAC AATCAATATC GAGTAGAAGA CCGAT 105

(2) INFORMATION FOR SEQ ID NO: 3383:

40

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 106 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: double
- (D) TOPOLOGY: linear

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(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3383:

50 nGTATGTGAA AACTATTGG CGATATTTTA GTGATGAGCC TCAGTGATCC TGGTTCCTGG 60

TTATCACCTC TGCTAGTTTA GTACCGATGG TCCAAGATTG ATGAGC 106

(2) INFORMATION FOR SEQ ID NO: 3384:

55

(A) LENGTH: 57 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

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(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3384:

10 TTCTTCGTCA AGATCAATCT CTTCAAGTAC AATCTTTAAT ACCTTCGTCA CCCATT 57

(2) INFORMATION FOR SEQ ID NO: 3385:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 65 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

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(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3385:

CGGGCATCTT AAAGCCGATG TTTATCCTGT AATCCTCCAA AAGGAAACAT GTACCTCAAT 60

25 TAGAG 65

(2) INFORMATION FOR SEQ ID NO: 3386:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 71 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

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(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3386:

35 CATTTTTAAT TATTTCTATT TGCTTTTAA CCACTTCTCT GACTGCTTCC GAATCATTTT 60

TCTTAACTGC A 71

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(2) INFORMATION FOR SEQ ID NO: 3387:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 55 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

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(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3387:

50 TTAGAAAAATG ATAAACGTAA AGCAGTAAGT GCTGAAGAAT ATAAAAAAGC TGACG 55

(2) INFORMATION FOR SEQ ID NO: 3388:

55

(A) LENGTH: 56 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

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(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3388:

10 TCTTCGACAA CTTTAATAAT ATTAGCCAAC GCAGTGTCCTC CGCCAACCTT TGTTCG 56

(2) INFORMATION FOR SEQ ID NO: 3389:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 56 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

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(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3389:

ATTATTAAC GATTAATGAC GCTGGCATGC CAATTCAGA TGATCATCGT CGTATC 56

(2) INFORMATION FOR SEQ ID NO: 3390:

25

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 70 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

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(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3390:

35 AAATGCTATG TACCCACTTT AGATGAAATT TTAGTACGT TATGGCCCGA AATGCCAACT 60

ATTATATTGA 70

(2) INFORMATION FOR SEQ ID NO: 3391:

40

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 59 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

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(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3391:

50 CAAACGCAAT AGCTGGTGAC TTAAGTGGCG GCACTTGGCA TGTGGATGGC AATACTTCG 59

(2) INFORMATION FOR SEQ ID NO: 3392:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 55 base pairs

55

(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

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(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3392:

GCATCTACTG GGAACGATT ACAAATTGGT GATTTATTAC AAAAGCCAAC TGTAT 55

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(2) INFORMATION FOR SEQ ID NO: 3393:

(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 55 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

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(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3393:

20

TTTATAATA TCCAGTCTG AACGCGATTCC CATAACGGA TCAATGGCAG GATTG 55

(2) INFORMATION FOR SEQ ID NO: 3394:

(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 55 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

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(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3394:

TGCTTACGCT CAGTGACATA ATCTAATGTG GCACGTAAAG CGCCACCATA CCACC 55

35

(2) INFORMATION FOR SEQ ID NO: 3395:

(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 58 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

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(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3395:

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AGTCACCAATT TGTTGGTACA GGTATGGAA CACGTGCGAG CACGTGATTG TGGTGGG 58

(2) INFORMATION FOR SEQ ID NO: 3396:

(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 55 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

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(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3396:

CAATGCATT TAAACCAAT ATTGAGTTAC ATGAAGCAC ATACGATGCA AACGT 55

(2) INFORMATION FOR SEQ ID NO: 3397:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 54 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: double
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3397:

TGTTGATGAG TCGTGTTTTA TCTCAAGATG TGTTACTCAA AAAGTTATAG AAGA 54

(2) INFORMATION FOR SEQ ID NO: 3398:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 54 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: double
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3398:

CTTCGTC AAG ATCAATCTCT TCAAGTAAAT CTTTAATACC TTCTGCACCC ATTT 54

(2) INFORMATION FOR SEQ ID NO: 3399:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 55 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: double
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3399:

AATGAAAGC TAGCTGTAGT TGCAAGAAAA ACTGGCTTAG CGATGGCAGT TGGAT 55

(2) INFORMATION FOR SEQ ID NO: 3400:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 54 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: double
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3400:

(2) INFORMATION FOR SEQ ID NO: 3401:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 55 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

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- (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3401:

TAAAAATCGC GCATTAAAC CGCTTATGAC AATCATTATT ACCGCAATAT GCTTG

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(2) INFORMATION FOR SEQ ID NO: 3402:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 54 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

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- (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3402:

25

GGCACCTCCT TGGATTATTT TTCTTCTACT GTTACTAAGT GCTTAACITTT GTTG

54

(2) INFORMATION FOR SEQ ID NO: 3403:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 58 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

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- (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3403:

35

GATAAGTCTA ACAAGTGGCA CCCATAATCG ATTAACTAC CGCCACCTTG CAAAGTITT

58

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(2) INFORMATION FOR SEQ ID NO: 3404:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 65 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

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- (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3404:

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TGGTTTTTGTG CCCCAAATTC TGCCAACTTA TTCATGAAC TATCTAGCGC TAITGTTCCT
TGCTCT

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65

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(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 55 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3405:

AAATTTCAGC ACCAATTGTT ATTGGACGAC ACCATTAGA TGCTGGTTCA GTTGC

(2) INFORMATION FOR SEQ ID NO: 3406:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 56 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3406:

TCGATTTCAG CGGAACACAT GTAACGTTAG CACAAGCCAT GAACCAATTA GGTGGC

(2) INFORMATION FOR SEQ ID NO: 3407:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 74 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3407:

AATTGCTAAT GGTCAAGTAT GGACGTGATC ATTGTGGTA CTACTTATG CTGAAACTGT

TAAAGATTAG AAGG

(2) INFORMATION FOR SEQ ID NO: 3408:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 68 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3408:

TGATTTCACA CTTGATAACG GATACTTCGA AGAGATACAT CAGCAGCGTT CAGCTCAGAT

AGTGCTCA

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 54 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3409:
 TATGATTAGA AAAAGGGGAA TTTTATGGA GTATAAGAGT TACTATGATT CGCC

(2) INFORMATION FOR SEQ ID NO: 3410:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 54 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3410:
 TATCTTTCAT CATTGAAGAA GATCGCGATG ACTATACAAT CAATATCGAG TATA

(2) INFORMATION FOR SEQ ID NO: 3411:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 53 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3411:
 TTGAAGTGCA CGAATCGAAT TATTGTAAGC AGTAATACTT GCCGGCTTCT TAC

(2) INFORMATION FOR SEQ ID NO: 3412:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 63 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3412:
 TAGCCGATGG AACCCCAATAA CGGTTGCCCT ATAAAAGTAT TGTTTGTGA TAGTGCTAAA

TCA

(2) INFORMATION FOR SEQ ID NO: 3413:

(A) LENGTH: 53 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

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(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3413:

10 ACTACCATG CTGTGCCG TTTCAACT GGTTCAGTAT CATTACAAC TGC 53

(2) INFORMATION FOR SEQ ID NO: 3414:

(i) SEQUENCE CHARACTERISTICS:

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(A) LENGTH: 62 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

20 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3414:

ATGCTGTGT AAACGGTAAT ACAACATACC TGCCCAACCC GGTACGCCA AAAATGTCC 60

TT 62

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(2) INFORMATION FOR SEQ ID NO: 3415:

(i) SEQUENCE CHARACTERISTICS:

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(A) LENGTH: 55 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

35 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3415:

ACTTAGATCA ATCAGTAT GCCTCAGGA ATCCATTATT TGAAGGTCAT GTTAG 55

(2) INFORMATION FOR SEQ ID NO: 3416:

40 (i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 53 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

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(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3416:

TTAGTTCAG CAATACCTGC TACAGTTGCT GCAGATGCTT CTTACCCA TGG 53

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(2) INFORMATION FOR SEQ ID NO: 3417:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 59 base pairs

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(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

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(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3417:

TGATTTAGT GCAAAAATTG TAGGTATCGC TGAGGCTTAC GGTGCATTAC ACGATCAA

59

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(2) INFORMATION FOR SEQ ID NO: 3418:

(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 53 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

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(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3418:

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CGTGGTCACC ATCAACAATT GCTCGATCTA ATTCAAGTAAT TCAGATTCAT GTT

53

(2) INFORMATION FOR SEQ ID NO: 3419:

(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 55 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

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(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3419:

TGGACCTACT GCAATAACTG AACGTCCTGA ATAGTCAACA CGTTACCAG TAAGT

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(2) INFORMATION FOR SEQ ID NO: 3420:

(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 53 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

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(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3420:

45

TGTTCCGGT ACCGTTTGCA CCAGGAATAA AGATGAGCAC GGGTCCTTGT CCG

53

(2) INFORMATION FOR SEQ ID NO: 3421:

(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 72 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

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(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3421:

AAATTAAGAA AATTCATTGC CAGATAATT AGATAAATAA TTAACACTTA GACCAATTCAC 60
 5 CCCAATCCCT GA 72

(2) INFORMATION FOR SEQ ID NO: 3422:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 54 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3422:

CATATGTTAA ATGACTCGC TAGATTAAAG TCGCAATAGT AGCGGCCGTT TCCT 54

(2) INFORMATION FOR SEQ ID NO: 3423:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 52 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3423:

CACGTTTCAA ACCTAAAGA TGCTAAAAAT TTCTCTTAAT TCTTGTCGAA TA 52

(2) INFORMATION FOR SEQ ID NO: 3424:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 54 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3424:

ATCGCCTAAC CAAGATGCAC CATCGGTGAT TTTATCGCCT GCCGCTTCAA CCAT 54

(2) INFORMATION FOR SEQ ID NO: 3425:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 59 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

AATAGAAAA GTACGTAGCG GTATGATGAG GATTTCGCG ACTAGTTTAG GGTCAAGTG 59

(2) INFORMATION FOR SEQ ID NO: 3426:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 52 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3426:

CCACGCCAG ATCCAGAACC AAGTCCAGAC CCAGAACCGG AACCAAGCCC AG 52

(2) INFORMATION FOR SEQ ID NO: 3427:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 52 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3427:

CCATATTAAT GGTATGTTT ATGTGAATGC TTGCTTGCTG GACTTGTCCT TT 52

(2) INFORMATION FOR SEQ ID NO: 3428:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 52 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3428:

TAAACAGAG ATTGATACTG CAGAAGATAA CTGTATCTCT CCATCTACTG TA 52

(2) INFORMATION FOR SEQ ID NO: 3429:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 52 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3429:

TGAAAATCCA CAAGTCGCAC GTACAGTGTT TGAAAAAGGT ATTATGGCGG CA 52

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 76 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3430:
 ATAATTCTTC CAAATATATG AAAATGGATT TGTCTCTTT TTATAAAAAAT CITATGCTTT 60
 TTAACCTAATT GTAAGA 76

(2) INFORMATION FOR SEQ ID NO: 3431:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 60 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3431:
 CTGCGGGGGA TAACTGIATC TCTCCATCTA CTGTAAGTC GTATTAGAAC TAAAGCGGCT 60

(2) INFORMATION FOR SEQ ID NO: 3432:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 52 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3432:
 GGCTTCAGGC TCATTGATAG GTAAAAGTTG CAAAGCCTGC AAAGCGATTG GG 52

(2) INFORMATION FOR SEQ ID NO: 3433:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 69 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3433:
 TCGCAGGATA CGCCTCCGAA TGAAGAAGGT TTATTGTGCG ATTCTTTTAT TGTTAAATTT 60
 TAAATTTTT 69

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 51 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3434:

GATCGCTATC CATTAGCTAA ATTTAAACGT TCAAACCTCAG GTACATGTTA C 51

(2) INFORMATION FOR SEQ ID NO: 3435:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 51 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3435:

TATAGCTACT GCTCGAGCTG CGGCCATTGC AGATGCTGAA CCAACTTCAG C 51

(2) INFORMATION FOR SEQ ID NO: 3436:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 70 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3436:

ATTAAAGCCA ACATTAAITTT ATCCACTATT AACATAACG GCTACAGGCT TATTAATGAT 60
 TTATACCTTT 70

(2) INFORMATION FOR SEQ ID NO: 3437:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 51 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3437:

TTTGTTGTTT GATTCCTCTC CACCTGTTTC AGGTAGTICA GATTTCITAG A 51

(2) INFORMATION FOR SEQ ID NO: 3438:

(A) LENGTH: 51 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

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(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3438:

10 GTGAATTCGG TAATTACATT TTAGGCTTGA TTTTCTATCG CTTCATTATCT G 51

(2) INFORMATION FOR SEQ ID NO: 3439:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 51 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

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(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3439:

TTAAGACAGG TTCCTTATGG GACTCTAACA ACGTATGGTG CTATTGCCAA A 51

25

(2) INFORMATION FOR SEQ ID NO: 3440:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 55 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

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(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3440:

35 CACTAGAAGA AACGGATTCA TCAGCTATTG GTATCGATTA CCATACTGCT GTGGA 55

(2) INFORMATION FOR SEQ ID NO: 3441:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 77 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

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(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3441:

CTTCTGGCAA TAGACCGCGA GTTACTGGGG GC AAAACAG TGTGTA AAC CGGA ACTACT 60

50

ATGAGGGGCA TGA AAGT 77

(2) INFORMATION FOR SEQ ID NO: 3442:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 55 base pairs

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(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

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(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3442:

GTTCGGTGT GACAGTCAGT GGACGCGTTA CCAAATGGGC GGAATTAA GCAA 55

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(2) INFORMATION FOR SEQ ID NO: 3443:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 51 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

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(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3443:

20

ATGAACCTTG GGATAAAGT GATGCCCAA CTTCCGTAA CTCATGATGA T 51

(2) INFORMATION FOR SEQ ID NO: 3444:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 51 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

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(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3444:

CAACGCAGCA AAGCGGAGT GCCCTTTACC TTCAGAAAT AATGTCCTAA T 51

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(2) INFORMATION FOR SEQ ID NO: 3445:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 50 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

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(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3445:

45

ACCGAGCAGC GCATAAACC TGCACTACCT TTATCGCTTC TAGATAATCC 50

(2) INFORMATION FOR SEQ ID NO: 3446:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 50 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

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(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3446:

CCAATGCAAC GATCCAGTTA TTGTGTTGGC GCAATTGATT AATGATATTC 50

(2) INFORMATION FOR SEQ ID NO: 3447:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 50 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: double

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3447:

GCGCATCATA TCCATTGCA CCGATAAGAT CCTTCTTACC TTCTACAAGT 50

(2) INFORMATION FOR SEQ ID NO: 3448:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 60 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: double

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3448:

GTTCCTACTT CTTTATCGTG GCTCCAACGT GCTCTGTACA TTTTTCCTCA TCTCTCTACT 60

(2) INFORMATION FOR SEQ ID NO: 3449:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 50 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: double

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3449:

CAACACCACC GACACCAGAA GTACCAAGCG AGCCGGAAC ACCAACACCG 50

(2) INFORMATION FOR SEQ ID NO: 3450:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 88 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: double

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3450:

TTATCACGGT ATATGAGGGG ATTGAGG 88

(2) INFORMATION FOR SEQ ID NO: 3451:

5 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 50 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

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(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3451:

15 TGC AAAACGT TATGAAGTAC AAGTTGATGG AAGCAACAAA GTAAGTGGCn 50

(2) INFORMATION FOR SEQ ID NO: 3452:

20 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 64 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

25 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3452:

CAGTTAAGTC ACCAGCTATT GCGTTGGTG ATCTTAAGCA GCGGTGGATT ATCAAGTTTG 60

GGTA 64

30 (2) INFORMATION FOR SEQ ID NO: 3453:

35 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 131 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

40 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3453:

TCGTAACAA TATACTATCT CAACATTAT TCATCCAATG GAGATAACGT ATTGCGCGGT 60

TTAACAGGTA ATTAAACCA AATACGGTAG TAATnATTAA TAGATAGCAA ATCAAGTATA 120

45 AAGAATAAGT A 131

(2) INFORMATION FOR SEQ ID NO: 3454:

50 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 50 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

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(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3454:

TTAAAAATGC AGTTATGGCC TCTAAAAATCG TATTAAGCAT ATTAGCGCCC 50

(2) INFORMATION FOR SEQ ID NO: 3455:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 51 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: double

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3455:

TGCTACATGG CGTTACGGTC AAGATCGTCA ACGATTGATG GGTACAATTG A 51

(2) INFORMATION FOR SEQ ID NO: 3456:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 50 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: double

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3456:

ACAAACTGCC AACGATTGGT CGTGTGAATC ATCCAGTGGG AGAAGCGCAN 50

(2) INFORMATION FOR SEQ ID NO: 3457:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 50 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: double

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3457:

AATCACGTGA GAAGGATACA GCTATTAGTA TCGGTATCAT CGCATTGATT 50

(2) INFORMATION FOR SEQ ID NO: 3458:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 51 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: double

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3458:

(2) INFORMATION FOR SEQ ID NO: 3459:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 50 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3459:

GGCCAACAA ATCGAAACT GCCAATTGGA CGTTGCCGT CATCAAAACC 50

(2) INFORMATION FOR SEQ ID NO: 3460:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 68 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3460:

TGCTTCGCGT AGAGGATCCG GTATTGCTAG TCAATTACTA CACCATTAA ATTGTGGAAG 60
 CAAAAGCT 68

(2) INFORMATION FOR SEQ ID NO: 3461:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 51 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3461:

TGGTCTTCGC AATCCACGGA TATACCTTAG TACCAGGTAA TTGACCACCT T 51

(2) INFORMATION FOR SEQ ID NO: 3462:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 56 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3462:

AAGCTATTAA TGTAATTTAT CAATTGATTG TGCAACGGAC ATCATCTACA AGACCG 56

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 50 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3463:
 ATACCAAATG TGAGAAACTG GAGCAGCAAn TTCAATGTGA CCCATTCTTT

(2) INFORMATION FOR SEQ ID NO: 3464:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 50 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3464:
 TCATTACGGC GTGGITCTAA TCGCATCTTT TTCAATCTAA GTGCGTTTnT

(2) INFORMATION FOR SEQ ID NO: 3465:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 57 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3465:
 AAAGAAGATT GGAACGIGTA TTGACGACTG CACCCAGGTA TGGGTGTTCG CCCGACA

(2) INFORMATION FOR SEQ ID NO: 3466:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 63 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3466:
 ACATCCGAAA GATGACTTGT TTAaaaaaAGC AGAGCATGAT TTGCTTACTA TGATTACACG
 CGG

(2) INFORMATION FOR SEQ ID NO: 3467:

(A) LENGTH: 57 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

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(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3467:

10 TACCGATGAT TTCGAGACA TAGACCGGCC TGTCTGGGG TCAACTGAA CTGTGTC 57

(2) INFORMATION FOR SEQ ID NO: 3468:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 59 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

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(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3468:

TGTTCTAAT ATTATGTG TAAAAATGTA CAATCTAAT AAAGCAATAG TCTTGGGCA 59

25 (2) INFORMATION FOR SEQ ID NO: 3469:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 57 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

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(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3469:

35 TCCATGATCG TTCAACATT AAATACACAA CTTAATAAGT ATCGTGTACA AGTTATG 57

(2) INFORMATION FOR SEQ ID NO: 3470:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 59 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

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(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3470:

50 CCTGTTCAG GCTATCCTT AAAGTGACGA TATAGAATAG CGATTAATAT CGGATAGT 59

(2) INFORMATION FOR SEQ ID NO: 3471:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 50 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double

55

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3471:

5 TACGCCATCA nGCCAGCTA ATCCGATTGC GACACCTAAT GCGAAATCAT 50

(2) INFORMATION FOR SEQ ID NO: 3472:

(i) SEQUENCE CHARACTERISTICS:

10 (A) LENGTH: 54 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

15 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3472:

AACGTCATCA AATGGAAGTA CGTGACGTTT ACTACTCTCA CTATGGCCGT ATGT 54

(2) INFORMATION FOR SEQ ID NO: 3473:

20 (i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 56 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
25 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3473:

30 TAATAGGCAT TCCATTAGG TCGTCGACA ACTGCAACGC AAGCATTGA AACAGA 56

(2) INFORMATION FOR SEQ ID NO: 3474:

(i) SEQUENCE CHARACTERISTICS:

35 (A) LENGTH: 55 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

40 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3474:

TTTTAGAAT GTCGCGTTAT CTGCGCCCAT TGGATTGACA TACTTCATAC GTATA 55

(2) INFORMATION FOR SEQ ID NO: 3475:

45 (i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 54 base pairs
(B) TYPE: nucleic acid
50 (C) STRANDEDNESS: double
(D) TOPOLOGY: linear

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GCCTTTAGGT AAAATGGGCA GAAATGCTAA TCATTTGGC GCGAAATGA AAAA

54

(2) INFORMATION FOR SEQ ID NO: 3476:

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- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 50 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: double
- (D) TOPOLOGY: linear

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(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3476:

15 AAAnCATTGC CAATGACCA TAAATTTTTA TGTAATTCAG CTTGTTGCTG

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(2) INFORMATION FOR SEQ ID NO: 3477:

20

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 50 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: double
- (D) TOPOLOGY: linear

25

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3477:

GGAnGACCAT TAATCGATAT CGGTACACAC GCTTTAGATT TAACGTTATG

50

(2) INFORMATION FOR SEQ ID NO: 3478:

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- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 60 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: double
- (D) TOPOLOGY: linear

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(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3478:

40 TGCTCTCTTA CGCCATGATG CTTATTCAAA GTAAATGCT TTGCCGGACT TTGCAGACTG

60

(2) INFORMATION FOR SEQ ID NO: 3479:

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- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 77 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: double
- (D) TOPOLOGY: linear

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(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3479:

GGTCTTTTCAG CTGCTAACGA GTTCTGTGTA CTGTTTCATG CTATCACTTT GCGTTCCTC

60

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(2) INFORMATION FOR SEQ ID NO: 3480:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 50 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3480:

CAAGTATCAT ATGGACGGCT CGCCCAACAC AAAACAAGnC CAAGCAAAAC 50

(2) INFORMATION FOR SEQ ID NO: 3481:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 62 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3481:

ATTAAACAAC ATAGCTGGC TAATCCTTA AAGCTTTTGA GTTTTCTGT TGTAGAACA 60
 GA 62

(2) INFORMATION FOR SEQ ID NO: 3482:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 51 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3482:

TGTGGCTAGC TGTTCTTTT TTAGTGCTG TGTAGGAGAT GAACTGATCG T 51

(2) INFORMATION FOR SEQ ID NO: 3483:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 54 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3483:

GCAGTTTATA AGTAGAGAGA CAGCTGATCA TGAGATAAAA ATGGGTAAAT ATTT 54

(1) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 55 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3484:
 TTATCTATCA CAGTACGAAT CCCCAGAGT ACCGATTGTG ACAGCAACT CTGCG

(2) INFORMATION FOR SEQ ID NO: 3485:

(1) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 52 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3485:
 ATCTCTGGTT CGATTCCCGT CGAGACCGGC ATCATTACAT GTTTATTATG GG

(2) INFORMATION FOR SEQ ID NO: 3486:

(1) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 50 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3486:
 TGTGTCACGA TAATAGGCGT AATATCACTC TTGGCATGA TTGCCGGATG

(2) INFORMATION FOR SEQ ID NO: 3487:

(1) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 67 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3487:
 TATTTTTGAT CACACTCAAC GCACAAACGA ATGGCCTTGA CCTTCACAGA ATAATGGTCT
 AATGTAA

(2) INFORMATION FOR SEQ ID NO: 3488:

- (A) LENGTH: 50 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: double
- (D) TOPOLOGY: linear

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(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3488:

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TAGGTGGTCA ATTACCTGGT ACTAGGTATA TCCGTGGATT GCGAGGACAA

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(2) INFORMATION FOR SEQ ID NO: 3489:

(i) SEQUENCE CHARACTERISTICS:

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- (A) LENGTH: 60 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: double
- (D) TOPOLOGY: linear

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(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3489:

CAATTGTACT TCATAACGTT TTGCATTTCG CCACCTTCAC CACTATATTT TCCCATGGTC

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(2) INFORMATION FOR SEQ ID NO: 3490:

(i) SEQUENCE CHARACTERISTICS:

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- (A) LENGTH: 50 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: double
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3490:

35

CTAAACTGAT TGTTTTACGT AACGTTTCAT CGGCTTCTTT CGCTTCTATC

50

(2) INFORMATION FOR SEQ ID NO: 3491:

(i) SEQUENCE CHARACTERISTICS:

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- (A) LENGTH: 52 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: double
- (D) TOPOLOGY: linear

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(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3491:

TGATTTTACC TTTCATCATT GAAGAAGATC GCCATGACTA TACAATCAAT AT

52

50

(2) INFORMATION FOR SEQ ID NO: 3492:

(i) SEQUENCE CHARACTERISTICS:

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- (A) LENGTH: 52 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: double

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3492:

5 AACCTTTTCA CAAATATCAT ATAACCTTTC TAATGGGATA ATCTCTTCAT GT 52

(2) INFORMATION FOR SEQ ID NO: 3493:

(i) SEQUENCE CHARACTERISTICS:

10 (A) LENGTH: 67 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

15 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3493:

GGTTTTAAAC CGTCACGAAC ATCTGGCAAT GCACAGCAA CGTACATACG TATCTAAAGT 60

TACGCTT 67

20 (2) INFORMATION FOR SEQ ID NO: 3494:

(i) SEQUENCE CHARACTERISTICS:

25 (A) LENGTH: 50 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

30 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3494:

TACGTTATGT TATGTAAATA ACAGTTAATT ATACCGGTGG TCTGGGTCGA 50

(2) INFORMATION FOR SEQ ID NO: 3495:

35 (i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 60 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

40 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3495:

45 CGCTTGTGTG TGTACTTTGG CAGTTCGCGT TGTGGATTGT GCCAGCGCTT TTAACCGTA 60

(2) INFORMATION FOR SEQ ID NO: 3496:

(i) SEQUENCE CHARACTERISTICS:

50 (A) LENGTH: 56 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

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(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3496:
GGCACCGGCT TCTCTATTGC TTCTTTAGCA TATCTGCAGC TCTCTCAAGG GACATG 56

5 (2) INFORMATION FOR SEQ ID NO: 3497:

(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 59 base pairs
(B) TYPE: nucleic acid
10 (C) STRANDEDNESS: double
(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3497:
CACCTTTAGG ATACGGCTCT AACCACTGTG TCGCGTCTCT ATATATCGCT AAACACGTA 59

(2) INFORMATION FOR SEQ ID NO: 3498:

20 (i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 55 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
25 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3498:
AAGTAATATC TGAATGCGTA TATTGTCTAA TTCAAATTC TACAGACATC GACGT 55

30 (2) INFORMATION FOR SEQ ID NO: 3499:

(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 50 base pairs
35 (B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3499:
AnTGTACAG TCCATCTTCA CATGACAACA ACGATATTTT GACCATCACA 50

(2) INFORMATION FOR SEQ ID NO: 3500:

45 (i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 56 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
50 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3500:

55

(2) INFORMATION FOR SEQ ID NO: 3501:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 52 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3501:

TGTGTGCCTT TAAAGTTGTTG ATGACACGCA TTCAAGACAA CAGACATGAC AC 52

(2) INFORMATION FOR SEQ ID NO: 3502:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 50 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3502:

CTGGCTTCAA TGGCACTTC TGTACCTGGT ACCAATGGGC GATGACCGAT 50

(2) INFORMATION FOR SEQ ID NO: 3503:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 50 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3503:

TGTCGACTT GCGGnATCG TAATTTAGCG CnTGTAATTC TAAAGGGACC 50

(2) INFORMATION FOR SEQ ID NO: 3504:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 64 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3504:

AACCTTCATA TTGCTTCTAA TAAGAAACCG AGCAGCGCAC CAAACCTGGC AGTACCTTTA 60
 TCGC 64

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 50 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3505:
 TATTGATGTT GAAAACTGTT ATGTCCTTTC GATGGGCCAA CACnAAaATA

(2) INFORMATION FOR SEQ ID NO: 3506:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 51 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3506:
 GAATATGGTA TCAATGTTAT GCACTAAGGC TTTATGAAAT TCATTAAAA T

(2) INFORMATION FOR SEQ ID NO: 3507:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 64 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3507:
 CGGTTTTAAT CGGTAAATTA AATATGGATG AGTTTGCAAT GGTGTTTACA GAACATCTAT
 TTAA

(2) INFORMATION FOR SEQ ID NO: 3508:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 50 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3508:
 CAAGGCCTTG TTTTAAAGC AGCTACAGTT GGCAATATGT CCACTCATGT

(2) INFORMATION FOR SEQ ID NO: 3509:

(A) LENGTH: 50 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

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(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3509:

10 CAGATGCAAA TTGACATGGT CATCAACATC nGTnCATTA AAGATGGACG 50

(2) INFORMATION FOR SEQ ID NO: 3510:

(i) SEQUENCE CHARACTERISTICS:

15 (A) LENGTH: 94 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

20 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3510:

ACAAGAGGGT CACCCAGCTC GGTGCGATTCC CACCGCCACA TCATGATATT TATTCATAGA 60

25 GTTTACGCAC TGTACATGAT TGAATGCGAT AAAG 94

(2) INFORMATION FOR SEQ ID NO: 3511:

(i) SEQUENCE CHARACTERISTICS:

30 (A) LENGTH: 54 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

35 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3511:

ACTCAACAAT GGATATTCTT ACACTGAAAA ATGGGTAATG GTGCAAAACAT AGTA 54

(2) INFORMATION FOR SEQ ID NO: 3512:

40 (i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 50 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

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(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3512:

50 CCGGATGCAC ATTGATGAC TGAAGTCCGC GATAAAGGGA CAAnAGTCAn 50

(2) INFORMATION FOR SEQ ID NO: 3513:

(i) SEQUENCE CHARACTERISTICS:

55 (A) LENGTH: 58 base pairs

(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

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(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3513:

GCATTAAATT GAAACAATCG GATTTACAAT TTTCTCTTAA TGCTGTCGTC TACACAGC 58

10

(2) INFORMATION FOR SEQ ID NO: 3514:

(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 66 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

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(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3514:

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GTGTTTCGTGT TCATGCAAGG TGAATGCGAG TGATCTGTTG GTATGGGCTT TATGCATGGC 60

AATCTG 66

25

(2) INFORMATION FOR SEQ ID NO: 3515:

(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 50 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

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(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3515:

35

ATGCCACTGA TAATGcnnCT GAACTTATTG ATGACTTCTC ATTAGACTAT 50

(2) INFORMATION FOR SEQ ID NO: 3516:

(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 50 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

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(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3516:

45

CGGCGACAAA GAGTAAACAC AGCGGAGGGA CAAAGCCCGC GACTAGCAAC 50

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(2) INFORMATION FOR SEQ ID NO: 3517:

(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 51 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double

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(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3517:

5 ATGCCTATGT AGCACCGAGT ACCGATACCG AACACTTAGC TAGCCAGTT C 51

(2) INFORMATION FOR SEQ ID NO: 3518:

(i) SEQUENCE CHARACTERISTICS:

10 (A) LENGTH: 50 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

15 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3518:

GAGCATnAAG GTGATTnGA TCGCTATCCG TTAGCTAAAT TTAAACGTT C 50

(2) INFORMATION FOR SEQ ID NO: 3519:

(i) SEQUENCE CHARACTERISTICS:

20 (A) LENGTH: 64 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

25 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3519:

30 GATTGGTATT TAGCTTTAAA TTTATGGTTG GAATAGTAGG TGGCATATAT CGCTGTTAGT 60
ATCG 64

(2) INFORMATION FOR SEQ ID NO: 3520:

35 (i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 73 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

40 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3520:

45 TCTTCAATCT CAGGGGCATC TACTAACATA TCATCCAGTC AATATTGCGT CACATTGTTA 60
ATCGGTTCCG ATC 73

(2) INFORMATION FOR SEQ ID NO: 3521:

50 (i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 75 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double

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(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3521:

5 TCAAATTGGC AATGTGTACG AATGTCGACT GTACTAACAT CATTAGCTCA TGATTGCCAG 60
 GTGATTTTCAT GGATG 75

(2) INFORMATION FOR SEQ ID NO: 3522:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 57 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3522:

15 TTCCAATGGG CTCTGCACTT TGGCGGTTTT AGTGCTTGGG TTGCCGGCGG TTTTGGGA 57

(2) INFORMATION FOR SEQ ID NO: 3523:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 72 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3523:

20 TGGTGGAGGT TTTGTTTTT CCGTGTGGT TTTTGTTTC GTCTGGTTT CTTTGTGTTT 60
 TGTGTTCTCT TT 72

(2) INFORMATION FOR SEQ ID NO: 3524:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 51 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3524:

35 ATATCACAAT ATACCGGTTT ATATGCTGTC TAATCATAGT TGAATAGTGA C 51

(2) INFORMATION FOR SEQ ID NO: 3525:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 59 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3525:
 TAGACCGTCG TGGATAGTTT TGGGTACGGT AACCAATTAT TTTTGAAGAG ACCATCCTC 59

5 (2) INFORMATION FOR SEQ ID NO: 3526:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 50 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

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15 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3526:
 TAATAACGTT GCCCTCCCAT GTATATCCTA CCAACATGAC ATCTTGACA 50

(2) INFORMATION FOR SEQ ID NO: 3527:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 52 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

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(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3527:
 TTCCCAACGA GCAGTCGCAT GCGGTACTGC CACGGCATTG TGATGCAGGC CT 52

30 (2) INFORMATION FOR SEQ ID NO: 3528:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 50 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

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(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3528:
 AAGAGAAAnGA TnGnnnGnnn GnAnAAAnnnn nnCCATnnnn nTAAAAAAn 50

45 (2) INFORMATION FOR SEQ ID NO: 3529:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 62 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

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CATTAGCCTC ATCCCCCTTCG TTITAGACTCG CTATAGATGC ACTAAATGGC GATATATTTT 60

TC 62

(2) INFORMATION FOR SEQ ID NO: 3530:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 50 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: double
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3530:

CACTACCACA AAAATTATAG GTGTTGACCT TCAGGnGCAA GTAGTATGAT 50

(2) INFORMATION FOR SEQ ID NO: 3531:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 50 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: double
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3531:

GAATGCAAAA TCCATTGTGA AGGAnATCGA ATGGTTTAGT AnCTCGTGCA 50

(2) INFORMATION FOR SEQ ID NO: 3532:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 50 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: double
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3532:

GGTAGAnCnC TGTITAGTAC TAGGGGCCCC TCTGGGTTA CCAATTCAGA 50

(2) INFORMATION FOR SEQ ID NO: 3533:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 50 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: double
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3533:

(2) INFORMATION FOR SEQ ID NO: 3534:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 52 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3534:

CGTCAACGAT GTAAAGTAAA GCCTTGTCCTA GTTTAATTGA CGAGTGGCGT AA

52

(2) INFORMATION FOR SEQ ID NO: 3535:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 400 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3535:

TTAATCCAGA AGTACCGGTG GATTTAGTTA TTGACCACTC AGTTCAGTG GATAGCTATG

60

CAAATCCAGA AGCTCTTGAA CGTAATATGA AATTAGAATT TGAACGTAAC TATGAACGTT

120

ATCAGTTTTT AAATGGGCA ACGAAAGCAT TTGATAATTA CAATGCAGTT CCTCCTGCAA

180

CTGGAATAGT TCACCAAGTT AACTTAGAAT ATTAGCAAG TGTGTACAT GTTCGTGATG

240

TAGATGGTGA AAAAAGTGCA TTCCAGATA CATTAGTTGG TACTGATTCA CATACAACAA

300

TGATAAATGG TATTGGCGTA CTAGGATGGG GTGTTGGTGG TATTGAAGCT GAAGCTGGAA

360

TGCTTGGACA ACCTCTTTAT TTCCCAATTC CAGAGGTTAT

400

(2) INFORMATION FOR SEQ ID NO: 3536:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 1118 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3536:

CGTATAGACT GTCCATAAC CCCAACAAGC AAGCTTGTG GTTTGGGCTC TTCCCGTTTC

60

GCTCCGCGCT ACTAAGGGAA TCGAATTTTC TTTCTCTTCC TCCGGGTACT AAGATGTTTC

120

AGTTCTCCGG GTGTGCCTTC TGATATGCTA TGTATTCAAC TATCGATAAC ATGACATAAC

180

	GCATATCGTC GTTAGTAACG TCCITTCATCG GCTTCTAGTG CCAAGGCATC CACCGTGGCG	300
	CCTTAATAAC TTAATCTATG TTCCACCAT TTTTATAAGT CAAACGCTCA CATACGGCTT	360
5	CGTTTTCATT ATTTTAAATG CTCATTTACA TAAGTAACT CTGCTTTAAA ATAATTTAAC	420
	TCATTGTCTG CTAACGCTTT TCTTTTATAA AAAGATTAA ACGCGTTATT AATCTGTGA	480
10	GTGTTCTTC GAACACTAGC GATTATTTCT TATGAATTCA AGCTTATTIA AAATCTTTA	540
	TTCACTCGGT TTTGCTGGT AAAATCTATA TTTTACTTAC TTATCTAGTT TTCAATGTAC	600
	AATTTCTTTT TAGTCAAGCG CTCGCATACT GCTTTATTTT CAAAAAATCA AATGCTCATT	660
15	TACAAAAGTA AACTCCGCTT TAATTTTCTT TAATGCATTG TCTAACACCC GCTTTCTTTA	720
	AAAAGAATAG ATTGTCAAGC GCTCGCATAA GCAATATCAC TTTAACCAAA AAATATTGGA	780
	ATGTTAAATA AACAITCAAA ACTGAATACA ATATGTACAG TTATCCGCA TCCTCTGAAG	840
20	AAGATGTTCC GAATATATCC TTAGAAAGGA GGTGATCCAG CCGCACCTTC CGATACGGCT	900
	ACCTTGTTAC GACTTCACCC CAATCATTTG TCCACCTTC GACGGCTAGC TCCTAAAAGG	960
25	TTACTCCACC GGCTTCGGGT GTTACAAACT CTCGTGGTGT GACGGGcGGT GTGTACAAGA	1020
	CCCGGGAACG TATTACCGT AGCATGCTGA TCTACGaTTA CTAGCGcTCC AGCTTCATGT	1080
	AGTCGAGTGC AGACTACCAT CCGGACTGnG GACCAACT	1118
30	(2) INFORMATION FOR SEQ ID NO: 3537:	
	(i) SEQUENCE CHARACTERISTICS:	
	(A) LENGTH: 424 base pairs	
	(B) TYPE: nucleic acid	
	(C) STRANDEDNESS: double	
35	(D) TOPOLOGY: linear	
	(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3537:	
40	GGGGATCCCC AGCCAGAAGA TTTATTCACT GCGATGATTC GTGAAATTGA AACGCAAGAT	60
	TTCGATATCG AACACCTGGC GACGGCAATT CGTAAmGTTG AAACATCAAC ATTAGGTGAA	120
45	GAAAGTGAAA ATGACTTTAT CGGTCTGTTC AGCGATATGG ATTTGAGTTC AACGCGACTA	180
	GGTAACAATG TCAAAGAACG TACTGCTTTA ATCTCTAAAG TCATGGTTAA TCTTGACGAC	240
	TTACCATTCT TACACAGTGA CATGGAAATT GATATGTTAG GTGATGCATA TGAATTTCCTA	300
50	ATTGGGCGCT TTGnCGGACA CGGGTAAAAA AAGCAGGCGA GTTCTATACA CCACAACAAG	360
	TATCTAAGAT ACTGGCGAnG ATTGTCACAG ACGGTAAAGA TAAATTACGT CACGTGTATG	420
	ACCC	424
55		

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 400 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

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- (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3538:

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ATCTCATATG	TTAAAAGGTA	AACAAGGTCG	TTCCCGTCAA	AACITACTIG	GTAACGTTG	60
TGACTATTCA	GGACGTTTCA	TTATTGCAGT	AGGTCCAAGC	TTGAAAATGT	ACCAATGTGG	120
TTTACCAAAA	GAAATGGCAC	TTGAACTATT	TAAACCATTC	GTAATGAAAG	AATTAGTTCA	180
ACGTGAAATT	GCAACTAACA	TAAAAAATGC	GAAGAGTAAA	ATCGAACGTA	TGGATGATGA	240
AGTTTGGGAC	GTATTGGAAG	AAGTAATTAG	AGAACATCCT	GTATTACTTA	ACCGTGCACC	300
AACACTTCAT	AGACTTGGTA	TTCAAGCATT	TGAACCAACT	TTAGTTGAAA	GGTCGTGCGA	360
TTCTGTCTAC	TCCACTTGTA	ACAACAGCTT	ATAACGCTGA			400

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- (2) INFORMATION FOR SEQ ID NO: 3539:

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- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 1171 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

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- (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3539:

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AATAAGTAAG	TTATTTTGTC	TGGTGACTAT	AGCAAGGAGG	TCACACCTGT	TCCCATGCCG	60
AACACAGAAG	TTAAGTCCTT	TAGCGTCGAT	GGTAGTCGAA	CTTACGTTC	GCTAGAGTAG	120
AACGTTGCCA	GGCAATGAC	AAATCGGAGA	ATTAGCTCAG	CTGGGAGAGC	ATCTGCCCTA	180
CAAGCAGAGG	GTCGGCGGTT	CGAACCCGTC	ATTCTCCACC	ATTATTCTTT	AGATATAGCC	240
GGCCTAGCTC	AAITGGTAGA	GCAACTGACT	TGTAATCAGT	AGGTGGGGGG	TTCAAGTCCT	300
CTGGCCCGCA	CCATCTTTTG	AGCCATTAGC	TCAGCTGGTA	GAGCATCTGA	CTTTTAATCA	360
GAGGGTCAGA	GGTTCGAATC	CTCTATGGCT	CATTACGATT	TAATTTTTAT	ATTAGCAAA	420
ATAATGCAGA	AGTAGTTTCA	CGGTAGAATA	CAACCTTGCC	AAGGTGGGGG	TGCGGGGTTT	480
GAATCCCGTC	TTCTGTCCCA	TTATTTTGCC	GGGGTGGCGG	AACCTGGCAG	CGCAGGAC	540
TTAAATCCTT	CGCGTAGAG	ATCACCGTAC	CGGTTGATT	CGGTCCTCG	GCACCATTTT	600
AGCGCCCGTA	GCTCAATTGG	ATAGAGCGTT	TGACTACGGA	TCAAGAGGTT	ATGGGTTCCA	660

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GAGCACTGG TTTGGGACCA AGGGGTCGCA GGTTCGAATC CTGTCITCCC GATTACTTCT 780
 TAAATTCAT TTTATGGGG CTTAGCTCAG CTGGGAGAGC GCCTGCTTGG CACGCAGGAG 840
 5 GTCAGCGTT CGATCCCGCT AGTCTCCACC ATTTATTTT TACACGATGA ACATTGAAAA 900
 CTGAATGACA ATATGTCAAC GTTAATTCCA AAAAACGTAA CTATAAGTTA CAAACATTAT 960
 TTAGTATTTA TGAGCTAATC AAACATCATA ATTTTATGG AGAGTTTGAT CCTGGCTCAG 1020
 10 GATGAACGCT GCGGCGTGC CTAATACATG CAAGTCGAGC GAACGGACGA GAAGCTTGCT 1080
 TCTCTGATGT TAGCGCGGA CGGGTGAGTA ACACGTGGGgA TAACCTACCT ATAAGACTGG 1140
 15 GaTAACCTCG GGAaACCGGA GCTAATACCG G 1171

(2) INFORMATION FOR SEQ ID NO: 3540:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 601 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

25 (x1) SEQUENCE DESCRIPTION: SEQ ID NO: 3540:
 CTCGGCAGTG TGAAATCAAC GACTCGAAGA CACAATGTCT TCTCCCCATC ACAGCTCAGC 60
 30 CTTAAGCAGT ACCGATTTG CCTAATACTC AGCCTTACTG CTTAGACGTG CAATCCAATC 120
 GCACGCTTCG CCTATCTTAC TCGCTCCCCC CATCGATTAA AACGATTATA GGTGGTACAG 180
 GAATATCAAC CTGTTATCCA TCGCCTACGC CTGTCGGCCT CAGCTTAGGA CCGGACTAAC 240
 35 CCAGAGCGGA CGAGCCTTCC TCTGGAACC TTAGTCAATC GGTGGACGGG ATTCTCACCC 300
 GTCTTTCGCT ACTCACACCG GCATTCTCAC tTCTAAGCGC TCACATGTC CTTACGATCA 360
 TGCTTCAACG CCCTTAGAAC GCTCTCTAC CATTGTCCAA AGGCATwCrC ACAGCTTCGG 420
 40 TaATATGITT AGCCCCGGTA CATTTTCGGC GCAGTGTAC TCGACTAGTG AGCTATTACG 480
 CACTCTTTAA ATGATGGCTG CTTCThAGCC AACATCCTAG GTTGTCTGG GGCACGnAC 540
 ATCCTTTTCC ACTTAACATA TATTTTGGGG ACCTTGGCTG GTGGGTCTGG GGCTGnTTCC 600
 45 C 601

(2) INFORMATION FOR SEQ ID NO: 3541:

50 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 1311 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

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(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3541:

5 GChAGGACCT ThCCAAATTT GAAATCCCTTT GACCACnTTT GGGGTAGAGC CCTTTCCChC 60
 GGGGACAAAG TGACCAGGTG GTGCATGGTT GTCTCAGCT CGTGTCTGA GATGTTGGGT 120
 TAAGTCCCGC CAACGAGCGC AACCCCTAAG CTTAGTTGCC ATCATTAAAT TGGCACTCT 180
 10 AAGTTGACTG CCGGTGACAA ACCGGAGGAA GGTGGGGATG ACGTCAAATC ATCATGCCCC 240
 TTATGATTTG GGCTACACAC GTGCTACAAT GGACAAATACA AAGGGCAGCG AAACCGTAG 300
 nTCAAGCAAA TCCCATAAAG TTGTTCTCAG TTCGATTGT AGTCTGCAAC TCGACTACAT 360
 15 GAAGCTGGAA TCGCTAGTAA TCGTAGATCA GCATGCTACG GTGAATACGT TCCCGGGTCT 420
 TGTACACACC GCCCGTCACA CCACGAGAGT TTGTAACACC CGAAGCCGGT GGAGTAACCT 480
 TTTAGGAGCT AGCCGTCGAA GGTGGGACAA ATGATTGGGG TGAAGTCGA ACAAGGTAGC 540
 20 CGTATCGGAA GGTGCGGCTG GATCACCTCC TTTCTAAGGA TATATTGCGA ACATCTTCTT 600
 CAGAAGATGC GGAATAACGT GACATATTGT ATTCAATTTT GAATGTTTGT TCATTCAAAT 660
 25 TAATGGGCTC ATAGCTCAGC TGGTTAGAGC GCACGCCCTGA TAAGCGTGAG GTCGGTGGTT 720
 CGAGTCCACT TAGGCCACC ATTAATTTAA TACCTATTGG GGGGCTTAGC TCAGCTGGA 780
 GAGCGCCTGC TTTCACGCA GGAGGTCAGC GGTTCGATCC CGCTAGTCTC CACCAATTAT 840
 30 TGTACATTGA AAACAGATA AGTAAGTAAA ATATAGATTT TACCAAGCAA AACCGAGTGA 900
 ATAAAGAGTT TTAATAAGC TTGAATTCAT AAGAAATAAT CGCTAGTGTT CGAAAGAAC 960
 CTCACAAGAT TAATAACGGG TTTAAATCTT TTTATAAAG AACGTAACTT CATGTTAACG 1020
 35 TTTGACTTAT AAAATGGTG GAAACATAGA TTAAGTTATT AAGGGCGCAC GGTGGATGCC 1080
 TTGGCACTAG AAGCCGATGA AGGACGTTAC TAACGACGAT ATGCTTTGGG GAGCTGTAAG 1140
 TAAGCTTTGA TCCAGAGATT TCCGAATGGG GAAACCCAGC ATGAGTTATG TCATGTTATC 1200
 40 GATATGTGAA TACATAGCAT ATCAGAAGGC ACACCCGGAG AACTGAAACA TCTTAGTACC 1260
 CGGAGGAAGA GAAAGAAAAT TCGATTCCCT TAGTAGCGGC GAGCGAAATG G 1311

(2) INFORMATION FOR SEQ ID NO: 3542:

- 45 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 400 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 50 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3542:

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CGCTAGAGTA GAACGTTGCC AGGCAAATGA CAAATCGGAG AATTAGCTCA GCTGGGAGAG 120
 CATCTGCGCTT ACAAGCAGAG GGTGCGCGGT TCGAACCGGT CATTCTCCAC CATTTATTCT 180
 5 TAGATATAGC CGGCCTAGCT CAATTGGTAG AGCAACTGAC TTGTAATCAG TAGGTTGGGG 240
 GTTCAAGTCC TCTGGCGGGC ACCATCTTTT GAGCCATTAG CTCAGCTGGT AGAGCATCTG 300
 ACTTTTAATC AGAGGGTCAG AGGTTGGAAT CCTCTATGGC TCATTACGAT TTAATTTTAA 360
 10 TATTTAGCAA AATAATGCGAG AAGTAGTTCG GCGGTAGAAT 400

(2) INFORMATION FOR SEQ ID NO: 3543:

15 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 804 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

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(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3543:

GTGAGAGTGA CGTTATGTTA TGTAATAAAC AGTTAATTAT ACCGGTGGTC GGGGTCGAAC 60
 25 CGCACTCCAC AAGTGAAGA GaTTTTGAGT CCCGCGCGT TGCCAATTCC GCCACACCGG 120
 CTTAATGGTA AACAAAAAAC TTCCCTTTGG AAGCAATTAT GGAGCGGAAG ATAGGATTTA 180
 30 CACCTATACC TCGTTCGGG aAGGAACtGg TTcTAAAAGT TGAACtACTC CCGCAATAT 240
 TAAATTATGG AGCGGAAGAT AGGATTTACA CCTATACCTC ATTCCAGGAA GGAATGTATT 300
 CTAAGAGTTG AAATACTCCC GCATTATTAT TAAATTATGG AGCGGAAGAT AGGATTTGCA 360
 35 CCTATACCTC GTTCCGGGAA GGAcKtGTtTc CTAAAAGTTG AACTACTCCC GCATAAACCT 420
 GGAGGCGGCA ACCGGATTGG AACCGGTGAT AAAGGTTTTG CAGACCTCTG CCTTACCACT 480
 TGGCTATGCG CcAATAACTG GGCTAGCTGG ATTCGAACCA ACGAGTGACG GATmAAAGTC 540
 40 CGTTGCCTTA CCGCTTGGCT ATAGCCCAAT AATAATAAGG GCGGCTGAAG GGGATCGAAC 600
 CCTCGAATGT CGGAACCACA ATCCGATGTG TTAACCACTT cACCACAGCC GCCATGGCAG 660
 GGGCAGTAGG AATCGAACC ACACCAAAGT TTTGgaGACC TCTATTCTAC CGTTGAACTA 720
 45 TGCCCCATT aAAAAaTaA AtKGGAGGGG GCGAGATTGc AAnTGCCGAA CCCGAAGGAG 780
 CGGATTTTAC ATTCCGCCGG GTTT 804

50 (2) INFORMATION FOR SEQ ID NO: 3544:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 400 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double

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(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3544:

ATGATGTCGT TGCACAATCA ATGATAAAT TACATTATAG CTTTAATCGT TTGAAGTATA 60
 GTTTGAAACC AGTAGTCACA GCTGTTCAAG GTCGTGCCTT AGGCGGTGGC TGTGAGCTTG 120
 TACTTTACTC ACCTATTGTT GTCGCTGCAA GTGAAACATA TATCGGTCTT GTTGAAGCAG 180
 GTGTGGCTT ATTACCGAGT GCGGTGGCC TTGCAGAAAT GGCTGATCGC ATATTACGCA 240
 CATCGCATAA GTTTGATkAC AAACAAGCTT CCATGACAAA AGTACTGACG AATATCGCAT 300
 TTGCGAAAGT CTCTACAAAT GCCTTTGAGG CACGTCGTTA TGGTATTTTA CGTGGATACA 360
 GATACGATTA TTTTCAATAC AGCACAACGT GTCCGAAGTT 400

(2) INFORMATION FOR SEQ ID NO: 3545:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 474 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3545:

CCGGCATTCT CACTTCTAAG CGCTCCACAT GTCCTTACGA TCATGCTTCA ACGCCCTTAG 60
 AACGCTCTCC TACCATTGTC CAAAGGnATC nCACAGCTTC GGTAATATGT TTAGCCCCGG 120
 TACATTTTCG GCGCAGTGTC ACTCGACTAG TGAGCTATTA CGCACTCTTT AAATGATGGC 180
 TGCTTCTAAG CCAACATCCT AGTTGTCTGG GCAACGCaCA TCCTTTTCCA CTTAACATAT 240
 ATTTTGGGAC CTTAGCTGGT GGTCTGGGCT GTTTCCTTTC CGAACACGGA CCTTATCACC 300
 CATGTTCTGA CTCCCAAGTT AAATTAAATTG GcATTGCGAG TTTGTCTGAA TTCGGTAACC 360
 CGAGAGGGGC CCTCTGTCCA AAcAGTGGCT CTACCTCCAA TAATCATCAn TTGAGGCTAG 420
 CCTTAAAGCT AATTGCGAGA GAACCAGTAT CTCCAGTTCG ATTGGAATTC ThCG 474

(2) INFORMATION FOR SEQ ID NO: 3546:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 400 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3546:

GCAATTCGTA AAGTTGAAAC ATCAACATTA GGTGAAGAAA GTGAAAATGA CTTTATCGGT 120
 CTGTTCCAGC ATATGGATTT GAGTTCAACG CGACTAGGTA ACAATGTCAA AGAAGCTACT 180
 5 GCTTTAATCT CTAAAGTCAT GGTTAATCTT GACGACTTAC CATTGCTTCA CAGTGACATG 240
 GAAATGATA TGTTAGGTGA TGCATATGAA TTCCTAATTG GCGGCTTTGn GCGACACGGG 300
 10 TAAAAAAGC AGGCGAGTTC TATACACCAC AACAAGTATC TAAGATACTG GCGAGATTGT 360
 CACAGACGCT AAAGATAAnT ACGTCACGTG TATGACCCAA 400

(2) INFORMATION FOR SEQ ID NO: 3547:

15 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 400 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

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(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3547:

AACGTTTTCA CTTCGCCAAG CCATTTTCTT TTGTGTTTAC TTTTATTTT GACGTTTTAG 60
 25 ACATAAAAAA AAGAGACCTT GCGGTCTCAA TGCGGCTCAT CGCATCCATT TTTTGCTTGG 120
 CAAGTTCTA CTCTAGCGGA ACGTAAGTTG GCTACCATCG ACGCTAAGAA CCTTCTTGA 180
 30 CTGTGACAA TCGCTTGCTT CTTTCTCTT CTTCGGCTCT CGCTTACTCA TTTAGCTCTA 240
 CTAAACTCGT TCGCTCTTT TCTCGTTTCG TCAGATTCAA ACGTTTTCAC TTCGCCAAGC 300
 CATTTTCTT TGTGTTTGT TTTATTTTG ACGTTTGA CATAAAAAA AGAGACCTTG 360
 35 CGGTCTCAAT GCGGCTCATC GCATCCanTT TTTGCTGGC 400

(2) INFORMATION FOR SEQ ID NO: 3548:

40 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 400 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

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(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3548:

ATGATGTCGT TGCACAATCA ATTGATAAAT TACATTATAG CTTAATCGT TTGAAGTATA 60
 50 GTTTGAAACC AGTAGTCACA GCTGTTCAAG GTCGTGCTT AGCGGTGGC TGTGAGCTTG 120
 TACTTTACTC ACCTATTGTT GTGCTGCAA GTGAACATA TATCGTCTT GTTGAAGCAG 180
 GTGTGGCTT ATTACGAGT GCGGTGGCC TTGCAGAAAT GGCTGATGCG ATATTACGCA 240

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TTGCAAGTCTCTACAAATG CCTTTGAGGC ACGTCGTTAT GGTATTATAC GTGATACAGA 360
 TACGATTATT TTCAATACAG CACAACGTGT CCGAAGTTGG 400

5 (2) INFORMATION FOR SEQ ID NO: 3549:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 400 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

15 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3549:

AGGTTACTCC ACCGCTTCG GGTGTTACAA ACTCTCGTGG TGTACGGGC GGTGTTGACA 60
 AGACCCGGGA ACGTATTACG CGTAGCATGC TGATCTACGA TTACTAGCGA TTCCAGCTTC 120
 20 ATGTAGTCGA GTTGCAACT ACAATCCGAA CTGAGAACAA CTTTATGGGA TTGCTTGAC 180
 CTGCGGGTTT CGTCGCCCTT TGTATTGTCC ATTGTAGCAC GTGTGTAGCC CAAATCATAA 240
 GGGGCATGAT GATTTGACGT CATCCCCACC TTCTCCGGT TTGTACCGG CAGTCAACTT 300
 25 AGAGTGCCCA ACTTAATGAT GGCAACTAAG CTTAAGGGTT GCGCTCGTTG CGGGACTTAA 360
 CCCAACATCT CACGACACGA GCTGACGACA ACCATGCACC 400

30 (2) INFORMATION FOR SEQ ID NO: 3550:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 400 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3550:

40 CGAACGGACG AGAAGCTTGC TTCTCTGATG TTAGCGGCGG ACGGTGAGT AACACGTGGA 60
 TAACCTACCT ATAAGACTGG GATAACTTCG GAAACCGGA GCTAATACG GATAATATT 120
 TGAACCGCAT GTTCAAAG TGAAAGACGG TCTTGCTGTC ACTTATAGAT GGATCCGCGC 180
 45 TGCATTAGCT AGTTGGTAAG GTAACGGCTT ACCAAGGCAA CGATGCATAG CCGACCTGAG 240
 AGGGTGATCG GCCACACTGG AACTGAGACA CGGTCCAGAC TCCTACGGGA GGCAGCAGTA 300
 GGGAACTCTC CGCAATGGGC GAAACCTGAC GGAGCAACCG CCGTGAGTG ATGAAGGTCT 360
 50 TCGGATCGTA AAACCTGTGT ATTAGGGAAG AACATATGTG 400

(2) INFORMATION FOR SEQ ID NO: 3551:

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(A) LENGTH: 506 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

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(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3551:

10	ACAAGGTAGC CGTATCGGAA GGTGCGGCTG GATCACCTCC TTTCTAAGGA TATATTCGGA	60
	ACATCTTCTT CAGAAGATGC GGAATAACGT GACATATTGT ATTGAGTTT GAATGTTTAT	120
	TTAACATTCA AATATTTTTT GGTAAAGTG ATATTGCTTA TGCAGCGCT TGACAATCTA	180
15	TTCTTTTAA AGAAGCGGT TGTAGACAA TGCATTAAAG AAAATTAAAG CGGAGTTTAC	240
	TTTTGTAAAT GAGCATTGA TTTTGTGAAA ATAAAGCAGT ATGCGAGCGC TTGACTAAAA	300
	AGAAATGTGA CATTGAAAC TAGATAAGTA AGTAATAAT AGATTTTACC AAGCAAAACC	360
20	GAGTGAATAA AGAGTTTTAA ATAAGCTTGA ATTCATAAGA aTAATCGCTA GTGTTGCGAA	420
	GAACACTCAC AAGATTAATA ACGCGTTTAA ATCTTTTAT AAAAGANAAC GTTTAGCAGA	480
25	CAATGAGTTA AATTATTTTA AAGCAG	506

(2) INFORMATION FOR SEQ ID NO: 3552:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 2209 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

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(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3552:

35	AAGCTGAGGC CGACAGTGGn GCGATGGATA ACAGGTGAT ATTCTGTAC CACCTATAAT	60
	CGTTTAAATC GATGGGGGA CGCATAGGAT AGCGCAAGTG TCGATTGGAT TGCACGTCTA	120
40	AGCAGTAAGG CTGAGTATTA GGCAAATCCG GTACTCGTTA AGGCTGAGCT GTGATGGGGA	180
	GAAGACATTG TGTCTTCgAG GTCGTTGATT TCACACTGCC GAGAAAAGCC TCTAGATAGA	240
	AAATAGGTGC CGGTACCGCA AACCACACACA GGTAGTCAAG ATGAGAATTC TAAGGTGAGC	300
45	GAGCGAACTC TCGTTAAGGA ACTCGGCAAA ATGACCCCGT AACTTCGGGA GAAGGGGTGC	360
	TCTTTAGGGT TAACGCCCGAG AAGAGCCGCA GTGAATAGGC CCAAGCGACT GTTTATCAAA	420
50	AACACAGGTC TCTGCTAAAC CGTAAGTGAa TGTATAGGGG CTGACGCGCTG CCGGTGCTG	480
	GAAGGTTAAG AGGAGTGGTT AGCTTCTGCG AAcTAcGaAT CGAAGCCCCA GTAAACGGCG	540
	GCGGTAACTA TAACGGTCTT AAGGTAGCGA AATTCCTTGT CGGGTAAGTT CCGACCCGCA	600

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GTGAAGATGC AGGTTACCCG CGACAGGACG GAAAGACCCC GTGGAGCTTT ACTGTAGCCT 720
 5 GATATTGAAA TTCGGCACAG CTGTACAGG ATAGGTAGGA GCCTTTGAAA CGTGAGCGCT 780
 AcTTaCgTgG aGGCGCTGGT GGGATACTAC CCTAGCTGTG TTGGCTTTCT AACCCGCACC 840
 ACTTATCGTG GTGGAGACA GTGTCAGGCG GGCAGTTTGA CTGGGGCGGT CGCTCCTTAA 900
 10 AAGGTAACGG AGGCGCTCAA AGGTTCCCTC AGAATGGTTG GAAATCATTc ATAGAGTGTA 960
 AAGGCATAAG GGAGCTTGAC TGCGAGACCT ACAAGTCGAG CAGGGTCGAA AGACGGACTT 1020
 AGTGATCCGG TGGTTCGCGA TGGAAGGGCC ATCGTCTAAC GGATAAAAGC TACCCCGGGG 1080
 15 ATAACAGGCT TATCTCCCCC AAGAGTTCAC ATCGACGGGG AGGTTTGCGA CCTCGATGTC 1140
 GGCTCATCGC ATCCTGGGGC TGTAGTCGGT CCCAAGGGTT GGGCTGTTGG CCCATTAAAG 1200
 CGGTACmGg CTGGGTTICAG AACGTCGTGA GaCAGTTCCG TCCCTATCCG TCGTGGGCGT 1260
 20 AGGAAATTGT AGAGGAGCTG TCCTTAGTAC GAGAGGACCG GGATGGACAT ACCTCTGGTG 1320
 TACCACTGTT CGTGCCAAAG cATnAGCTGG GTAGCTATGT GTGGACGGGA TAAAGTGCTGA 1380
 AAcATnCTnA AGCATGAAGC CCCCCTCAAG ATGAGATTTC CCAACTCCG TtATAAGATC 1440
 25 CCTCAAAGAT GATGAGGTTA ATAGGTTGGA GGTGGAAGCA TGGTGACATG TgGGAGCTGA 1500
 CGAATACTAA TCGATCGAAG ACTTAATCAA AATAAATGTT TTGCGACAAA tnCaCTTTTA 1560
 30 CTTACTATCT AGTTTTGAAT GTATAAAATTA CATTCATATG TCTGTTGACT ATAGCAAGGA 1620
 GGTCAACCTT GTTCCCATGC CGAACACAGA AGTTAAGCTC CTTAGCGTCG ATGGTAGTCG 1680
 AACTTACGTT CCGCTAGAGT AGAACGTTGC CAGGCAGTTT TTTAATCAAA TTTTGTTTAA 1740
 35 AAAATAAAAT GGACAAGATA AAAAAAGTTA TTGACTTAAA TGTTAATAAA ATGTATAAAT 1800
 AATTCCTGTC GGTAAGAAAA ATGAACATTG AAAACTGAAT GACAATATGT CAACGTTAAT 1860
 TCCAAAAAAC GTAACATAA GTTACAAACA TTATTTAGTA TTTATGAGCT AATCAACAT 1920
 40 CATAATTTTT ATGGAGAGTT TGATCCTGGC TCAGGATGAA CGCTGGCGCG GTGCCTAATA 1980
 CATGCAAGTC GAGCGAACGG ACGAGAAGCT TGCTTCTCTG ATGTTAGCGG CGGACGGGTG 2040
 AGTAACACGT GGATAACCTA CCTATAAGAC TGGGATAACT TCGGAAACC GGAGCTAATA 2100
 45 CCGGATAATA TTTTGAACCG CATGGTTCAA AAGTGAAGGA CGGCTTGCTG GTCACCTTATA 2160
 GATGTGATCCG CGCTGCATTA GCTAGTTGGT AAGGTAACGG CTTTACCCA 2209

(2) INFORMATION FOR SEQ ID NO: 3553:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 518 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double

(x1) SEQUENCE DESCRIPTION: SEQ ID NO: 3553:

5 CTAGATAAGT AAGTAAATA TAGATTTTAC CAAGCAAAAC CGAGTGAATA AAGAGTTTAA 60
 AATAAGCTTG AATTCATAAG AAATAATCGC TagTGTTCGA AAGAACACTC ACAAGATTAA 120
 TAACGCGTIT CCTGTAGGAT GGAACATAG ATTAAGTTAT TAAGGGCGCA CGGTGGATGC 180
 10 CTTGCGCACTA GAAGCCGATG AAGGACGTTA CTAACGACGA TATGCTTTGG GGAGCTGTAA 240
 GTAAGCTTTG ATCCAGAGAT TTCCGAATGG GGAACCCAG CATGAGTTAT GTCATGTTAT 300
 15 CGATATGTGA ATACATAGCA TATCAGAAGG CACACCCGGA GAACTGAAAC ATCTTAGTAC 360
 CCGAGGAAG AGAAGAAAAA TTCGATTCCC TTAGTAGCGG CGAGCGAAAC GGAAGAGGCC 420
 CAAACCAACA AGCTTGCTTG TTGGGGTTGT AGGCACTCT ATACGGAGTT ACaAAGGmCG 480
 20 ACATTgGAC AaTCATCTGG gAAAGwTGaT CCAAGGAA 518

(2) INFORMATION FOR SEQ ID NO: 3554:

(1) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 587 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3554:

AGAATGACGG GTTCGAACCG CGACCCCTCT GCTTGAAGG CAGATGCTCT CCCAGCTGAG 60
 CTAATTCTCC GATTTAAAAAC TGCCTGGCAA CGTTCTACTC TAGCGGAACG TAAGTTsGAC 120
 35 TACCATCGAC GCTAAGGAGC TTAACCTCTG TGTTGCGCAT GGAACAGGT GTGACCTCCT 180
 TGCTATAGTC ACCAGACATA TGAATGTAAT TTATACATTC AAAACTAGAT AGTAAGTAAA 240
 40 AGTGATTTTG CTTCGCAAAA CATTIATTTT GATTAACTCT TCGATCGATT AGTATTGCTC 300
 AGCTCCACAT GTCACCATGC TTCCACCTCG AACCTATTAA CCTCATCATC TTTGAGGGAT 360
 CTTATAACCG AAGTTGGGAA ATCTCATCTT GAGGGGGGCT TCATGCTTAG ATGCTTTGAG 420
 45 CACTTATCCC GTCCACACAT AGCTACCCAG CTATGCCGTT GGCACGACAA CTGTGTACAC 480
 AGAGGTATGT CCATCCCGGT CCTCTGTAC TAAGGACAGC TCCTCTCAAA TTTCTACGC 540
 CCAACGACGA TAGGgACCGA ACTGCTCAC GACGTTCTGA ACCCAGA 587

(2) INFORMATION FOR SEQ ID NO: 3555:

(1) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 399 base pairs

(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

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(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3555:

	GAATCTGAAT CGCTATCTGA ATCCGAGTCA CTGTCGGAAT CTGAGTCACT GTCGGAATCT	60
10	GAATCGCTAT CTGAATCTGA ATCGCTGTCT GAATCTGAAT CGCTGTCTGA ATCTGAGTCG	120
	CTATCTGAGT CGGAATCGCT ATCTGAGTCG GAATCACTGT CGGAATCTGA ATCGCTGTCT	180
	GAGTCGGAAT CACTGTCTGGA GTCAGAATCG CTGCTGAGT CGGAATCACT GTCGGAATCT	240
15	GAATCGCTAT CTGAATCTGA ATCGCTATCT GAATCCGAGT CACTGTCTGA GTCAGAATCG	300
	CTATCTGGAA TCTGGAGTCA CTGTCGGAAT CTGAGTCACT GGTCTGGAGT CAGAATCGCT	360
20	ATCTGGAATC CGAAGTCATG GTCTGAGTCG GGAATCGCT	399

(2) INFORMATION FOR SEQ ID NO: 3556:

(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 400 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

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(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3556:

	ATTCATCTTT CCAGATGATT CGTCTAATGT CGTCTTTGT AACTCCGTAT AGAGTGTCTT	60
	ACAACCCCAA CAAGCAAGCT TGTGGTTTG GGCTCTTCCC GTTTCGCTCG CCGCTACTAA	120
35	GGGAATCGAA TTTTCTTTCT CTTCCTCCGG GTACTAAGAT GTTTCAGTTC TCCGGGTGTG	180
	CCTTCTGATA TGCTATGTAT TCACATATCG ATAACATGAC ATAACATGAT CTGGGTTTCC	240
40	CCATTGCGAA ATCTCTGGAT CAAAGCTTAC TTACAGTCC CCAAAGCATA TCGTCGTTAG	300
	TAAAGTCTCT CATCGGCTTC TAGTGCCAAG GCATCCACCG TCGGCCCTTA ATAACCTAAT	360
	CTATGTTTCC ATCTACAGG AAACGCGTTA TTAATCTTGT	400

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(2) INFORMATION FOR SEQ ID NO: 3557:

(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 657 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

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(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3557:

5 ACAAATTCCTT ACGCCACGCA CGGATAGGGA CCGAACTGTC TCACGACGTT CTGAACCCAG 180
 CTGCGGTACC GCTTTAATGG GCGAACAGCA AnCCCTTGGG ACCGACTACA GCCCCAGGAT 240
 GCGATGAGCC GACATCGAGG TGCCAAACCT CCCCGTCGAT GTGAACCTCT GGGGAGATA 300
 10 AGCCTGTTAT CCCCGGGGTA GCTTTTATCC GTTGAGCGAT GGCCCTTCCA TGCGGAACCA 360
 CCGGATCACT AAGTCCGCTT TTCGACCCCTG CTCGACTTGT AGGTCTCGCA GTCAAGCTCC 420
 CTTATGCCCTT TACACTCTAT GAATGATTTC CAACCACTCT GAGGGAACtT TGAGCGCCTC 480
 15 CGTTACCTTT TAGGAGGCGA CCGCCCCAGT CAAACTGCCc GcctGACACT GTCTACemCC 540
 ACGATAAGTG GTCCGGGTTm GmAAGCCAAC ACAGCTAGGG TAGTATCCCA CCAGCGCCTn 600
 CCCACTAATA GCGCTCACGT TTCAAAGGCT CCTACCTATC CTGTACAAGC TGTGCCG 657

(2) INFORMATION FOR SEQ ID NO: 3558:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 400 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3558:

30 GAGTCCATGG GTGAAAGAAG CATCTGCAGC AACTGTAGCA GGTATTGCTG GAACTAATAA 60
 TGGTATTACT GTTGACGAG GTACTTTCAA CCCTGCTGAT ACAATTCAAG TTGTGCAAC 120
 35 GCAAGGACAG CGGAGAGACA GTGAGTGATG AGCAACGTAT nnTnGATTTT ACAGTTGTG 180
 CACCACAACC GAACCAAGCG ACTACTAAGA TTTGGCAAAA TGgTCATATT GATATCACGC 240
 CTAATAATCC ATCAGGACAT TTAATTAATC CAACTCAAGC AATGGATATT GCTTACACTG 300
 40 AAAAAGTGGG TAATGGTGCA GAACATAGTA AGACAATTAA TGTTGTTCGT GGTCAAATA 360
 ATCAATGGAC AATTGCGAAT AAGCCTGACT ATGTAACGTT 400

(2) INFORMATION FOR SEQ ID NO: 3559:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 400 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3559:

CGACACAAAA CAAGCCAAGC AAAACAAACG CATATAACGT AACACACAT GGAAACGGCC 120
 AAGTATCATA TGGCGCTGCG CAACACAAAA CAAGCCAAGC AAAACAAATG CATACAACGT 180
 5 AACACACAT GCAAACGGTC AAGTGTCTA CGGAGCTGCG CCGACATACA AGAAGCCAAG 240
 TAAAACAAAAT GCATACAATG TAACAACACA TGCAGATGGT ACTGCGACAT ATGGGCCTAG 300
 10 AGTAACAAAA TAAGTTTGTA ACTCTATCCA AAGACATACA GTCAATACAA AACATTACGT 360
 ATCTTTACAA CAGTAATCAT GCATTCTATG ATGCTTCTAA 400

(2) INFORMATION FOR SEQ ID NO: 3560:

15 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 485 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

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(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3560:

TTTAGGTTAT ACAGCATTCG AGGAGGATA CTTATCAATT ACTTATTAA TCATGGTGTT 60
 25 ATTGATGATT CGAGTTGGTG AAAAAATTATT ACAAAAAATG GGTCTAAGC GACCAATGTT 120
 ATTAGGTACA TTCATTGTGG TCATTGGTAT TGCACCTATT TCATTAGTAT TCTTACCAGG 180
 30 CATATTTTAT GTTATCAGTT GTGTCGTAGG ATATTTATGT TTCGGACTAG GCTTAGGTAT 240
 TTATGCAACA CCTTCTACAG ATACAGCTAT TTCGAATGCA CCGTTAGATA AAGTTGGCGT 300
 TGCTTCAGGT ATTTATAAAA TGGCTTCATC ACTTGGTGg CGCATTTCGGT GTCGCAATTA 360
 35 GTGGTGCTGT ATATGCTGCT GCAGTTGCTG CAACGAGCAT TCCATACAGG TGGATGATT 420
 GCACTTTGGG TTAAGSTATT GAATGGGGAA TCCATGGCCA TTTATCGCAA TTTTAAThCG 480
 CGATT 485

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(2) INFORMATION FOR SEQ ID NO: 3561:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 463 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

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(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3561:

AAATTATGTG AAGTAAAGG AGTACGTCCA TGCAAAATTT AGATAAGAAT TTTGACaTT 60
 TATCtCGTAA AGAAAAGTTA CaCAATTGG TTGATAAGCA ATGTTATCA GAAGAACAAT 120

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ATGTCATCGC	GCAAGTGCA	TTACCCGTTG	GATTATTACC	GAATATCATT	GTGGACGATA	240
AGGCATATGT	TGTACCTATG	ATGSGTGAAG	AGCCTTCAGT	TGTCGCTGCA	GCTAGTTATG	300
GTGCAAGAGCT	AGTGAATCAG	ACTGGCGGAT	TTAAACGGT	ATCTTCTGAA	CGTATTATGA	360
TAGTCAAAAT	CGTCTTTGAT	GCGCTTGACG	ATACTGAAAA	ATTATCAGCA	GACATTAAAG	420
CTTTAGAAAA	GCAATTTCAT	AAAATTGCGG	ATGAGGCATA	TCC		463

(2) INFORMATION FOR SEQ ID NO: 3562:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 643 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3562:

AAITTTAAACC	CAATTGCTG	GCAAAACGTT	TTCTTTTATA	AAAAGATTTA	AACGCGTTAA	60
TTAATCTTGG	TGChGgTCTT	TCGAACACTA	GCGATTATTT	CTTATGAATT	CAAGCTTATT	120
TAAAACTCTT	TATTCACTCG	GTTTTCCTTG	GTAAATCTTA	TATTTTACTT	ACTTATCTAG	180
TTTTCAATGT	ACAATTTCTT	TTTAGTCAAG	CGCTCGCATA	CTGCTTTATT	TTCAAAAAAT	240
CAAATGCTCA	TTTACAAAAG	TAAACTCGCG	TTTAATTTTT	CTTAATGCAT	TGCTCAACAA	300
CCGCTTTCTT	TAAAAAGAAT	AGATTGTCAA	GCGCTCGCAT	AAGCAATATC	ACTTTAACCA	360
AAAAATATTT	GAATGTTAAA	TAAACATTCA	AAACTGAATA	CAATATGTCA	CGTTATTCCg	420
CATCTTCTGA	AGAAGATGTT	CCGAATATAT	CCTTAGAAAG	GAGGTGATCC	AGCCGCACCT	480
TCGATACGG	CTACCTTGT	ACGACTTCAC	CCCAATCATT	TGTCCACCT	TCGACGGCTA	540
GCTCTTAAAA	GGTTACTCCA	CCGGCTTCGG	GTGTTACAAA	CTCTCGTGGT	GTGACGGGGG	600
GTGTGTACAA	GACCCGGGAA	CGTATTCACC	GTAGCATGCC	TCG		643

(2) INFORMATION FOR SEQ ID NO: 3563:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 400 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3563:

GATAAATCCA	AATAGTCGAC	TATAAAAAAT	AATATCTACT	AAAGTATCTT	TATGTAATCC	60
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TTCCATACCA TCGTACACTC AGTGGTCCTA AGTTAAATGC CACAGGATCT ATATAGTTAA 180
 ATACAATACC CATTCAACCT ACTCCTCACT CTTATGACTG TTCTTGATAA TTTCTTCATT 240
 5 TAATCTTTCA CTAATTTCTT CGGCCGTGTT AATGCCCATG ATATTTAATC GATAGTTCAT 300
 TGCAGCGACC TCAATAATTA CGCAACATT TCTACCAGGT CTTACAGGTA TTGGTTTTTT 360
 TTAGTGGATT TCAGTATCTA AAATACTTAG CGTCTCTTCA 400

(2) INFORMATION FOR SEQ ID NO: 3564:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 400 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3564:

TCGTCAGChC nTGTGCTGAG ACGTTGGGTT AAGTCCCGCA ACGAGCGCAA CCCTTAAGCT 60
 TAGTTGCCAT CATTAAAGTT GGCACCTCAA GTTGACTGCC GGTGACAAAC CGGAGGAAGG 120
 25 TGGGGATGAC GTCAAATCAT CATGCCCTT ATGATTGGG CTACACACGT GCTACAATGS 180
 ACAATACAAA GGGCAGCGAA ACCGCGAGT CAAGCAAATC CCATAAAGTT GTTCTCAGTT 240
 CGGATTGTAG TCTGCAACTC GACTACATGA AGCTGGAATC GCTAGTAATC GTAGATCAGC 300
 30 ATGCTACGGT GAATACGTTT CCGGGTCTTG TACACACCGC CCGTCACACC ACGAGAGTTT 360
 GTAACACCCG AAGCCGGTGG AGTAACTTTT AGGAGCTAGC 400

(2) INFORMATION FOR SEQ ID NO: 3565:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 400 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3565:

CAAACCATTT GTAGCTATTT GTAACCTTA TATTGATATT GTTCCTGGAC ATGTTCACTT 60
 GAGAGAGCTT GCAGATATAG CTAAGAAGC AATTAGAGAA GCCGGTGCCA TTCCATTGTA 120
 50 ATTCAATACA ATTGTGTTG ATGATGGAAT AGCTATGGGA CATATCGGAA TGCATATTC 180
 TCTACCATCA CGTGAATAA TTGCAGATGC AGCTGAAAT GTAATTAAAG CTCATTGGTT 240
 TGACGGCGTA TTTTACATTC CTAATTGTGA CAAGATTACA CCGGTATGTA TTTTAGCAGC 300

TGCACATGGA AAAGCATTA CACTTTCATC AATGTTTGAA

400

(2) INFORMATION FOR SEQ ID NO: 3566:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 420 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3566:

15	AAATTACGTA CATATTTAAA GCTGACGGCA CTATGACTGC AGGAACATCT GCCCCACTTT	60
	CTGATGGTGC AGGATTGTGA GTTTTAATGT CTGGAGATAA AGTGAAAGAA CTCGGcGTGA	120
	CACCTATTGC ACGATTGCTT GGTTTTAAGG CAGTAGGCGT TGACCCGAAA ATTATGGGTA	180
20	TTGGGCGCTG ATATGCGATT CCTGAAGSTAT TGCTACTCAG CAATCTATCT GTTGAAGACA	240
	TTGATTGAT CGAATTGAAC GAAGCATTG CTCTCAAAC GATTGCATCT ATTAAGAAG	300
	TAGGCTTAGA TATATCAGT ACGAATGTGA ATGGTGGCGC TATTGCTTCA GGTATCCAT	360
25	TAGGTGCTAC AGGCGCaATG TTAACCGCGC GTTACTTAA TGAAATGGGT AGACGTCCCG	420

(2) INFORMATION FOR SEQ ID NO: 3567:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 400 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3567:

	TACGGGAAGT AGCTCAGCTT GGGTAGAGCA CTTGGTTTGG GACCAAGGGG TCGCAGGTTG	60
40	GAATCCTGTC TTCCCGATAT ACTGTAATTA TTAATGGGGC TTAGCTCAGC TGGAGAGCG	120
	CCTGCTTTCG ACGCAGGAGG TCAGCGGTTG GATCCCGCTA GTCTCCACCA TATTATTAC	180
	AAACTATATA AGGCGGTGTA GCTCAGCTGG CTAGAGCGTA CGGTTTATAC CCGTAGGTC	240
45	GGGGGTTCGA TCCCTCCAC CGCCACTATT TATTAGTTGT AAAATTATAT TTAGGACCTT	300
	TAGCTCAGTT GGTAGAGCT AACGGCTCAT AACGGTTCCG TCGCAGGTTG GAGTCCTGCA	360
50	GGTCCCATAT AATTTTGGAG GAATACCCAG TCCGGCTGAA	400

(2) INFORMATION FOR SEQ ID NO: 3568:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 400 base pairs

(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

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(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3568:

TTAGCCAATC CCCATTCTGG ACGTACCTCA CTCGAATCAC TCGCAACCG CTGCGCTTCT	60
10 TCCACTGGAT GATTACACAG ACCAATCGTT GGCAGTTTGT CCAAACGTTT GCGATTGCGT	120
GTTTCAGAAA TCATCGGCAT CGCGTCATT C AATGATT CAT ATGCATCTAA AGCAATAGAA	180
GATAATGTGT CTGGCACATA TACCCATGCC AACGTATCAG TAGACGTATG ATGTTCTGCT	240
15 ACCGCAAAAA CAGTTGTCTC TGGANTATAC ACACCTGATT GTTTTAATCC TTGTCTGACA	300
TTTGACGAT TACATATCAT CGCTAATAAC TTAGCATnA AAACCGCTTG ATGCGCCACC	360
ACAAGCCCCA CATTCGAAGT GATGGCATGG nTGTGGGTTn	400

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(2) INFORMATION FOR SEQ ID NO: 3569:

(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 400 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

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(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3569:

CCCCGACCTC ACGGGTATGA ACCGTACGCT CTAGCCAGCT GAGCTACACC GCCTTATATA	60
GTTTGTAAAT AATATGGTGG AGACTAGCGG GATCGAACC CTGACCTCCT GCGTGCAAG	120
35 CAGGCGCTCT CCCAGCTGAG CTAAGCCCC ATAATAATTA CAGTATATCG GGAAGACAGG	180
ATTGCAACCT GCGACCCCTT GGTCCCAAAC CAAGTGCTCT ACCAAGCTGA GCTACTTCCC	240
GTATAATTAA CGCGCCCGAT AGGAGTCGAA CCCATAACCT CTGTATCCGT AGTCAAAACG	300
40 TCTATCCAAT TGAGCTACGG GCGCATATGT TTTTATTGAA AATGGTGC GG AGGACCGGAA	360
TGGAACCGGT ACGTGATCAC TCACCGCAGA TTTTAAGTCC	400

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(2) INFORMATION FOR SEQ ID NO: 3570:

(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 542 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

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(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3570:

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GTTTTATACC GTTGAGCGAT GGCChTCCCA TGGGGACCTA CCGGATCACT AAGTCGCTCT 120
 TTTGACCCCT GCTTCGACTT GTAGGTCTCG CAGTCAAGCT CCCTTATGCC TTTACACTCT 180
 5 ATGAATGATT TCCAACCAT CTGAGGGAAC CTTTGAGCGC CTCGGTTACC TTTAGGAGG 240
 CGACCGCCCC AGTCAAACTG CCGCGCTGAC ACTGTCTCCC ACCACGATAA GTGGTGCGGG 300
 10 TTAGAAAGCC AACACAGCTA GGGTAGTATC CCACCAGCGC CTCACGTaa GytAGCGCTC 360
 ACGTTTCAAA GGCTCTACC TATCCTGTAC AAGCTGTGCC GAATTTCAT ATCAGGCTAC 420
 AGTAAAGCTC CACGGGGTCT TCCCGTCTG TCGCGGTAA CGTGCATCTT CACAGGTACT 480
 15 ATGATTTCAC CGAGTCTCTC GTTGAGACAG TGCCCAAATC GTTACGCCTT TCGTGCGGGT 540
 CG 542

(2) INFORMATION FOR SEQ ID NO: 3571:

20 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 619 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 25 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3571:

30 ATGCCCCACC ACATGGAGCT TCCAATCCCA TTGCTCTAAC CAATGAGCTA CTGAACCATA 60
 aTAAAAATGT AatGATGGCG GTCTCGACGG GAATCGAACC CGGATCTCn GCGTGACAGG 120
 CAGGCGTGTT AACCCTTACA CTACGAGACC TATAAAATAT TCGGGGAGGC GGATTGTGAAC 180
 35 CACCGGACTT CGGGTTATGA GCCCGACGAG CTACCGAACT GCTCCATCCC GCGATAATAA 240
 AAAAATAATG CGGAGGAAGA GGGATTGGA CCCCCGCGC CCGTTAAGGC CTGTCTCGTT 300
 40 TTCAAGACCG ATCCCTTCAG CCGGACTTGG GTATTCTCTC ATTATTATAG GTAAATCGCT 360
 ATTAATTATA AAATTAAATG GCGGTCTCGA CGGGAATCGA ACCCGCGATC TCCTGCGTGA 420
 CAGGCGGGCG TGTTAACCGC TACACTACGA GACCATTAGT AAAACGGAGG AAGAGGGATT 480
 45 CGAACCCCGC CGAGCGGTTA AGCCCTGTGC GGTTTTCAAG ACCGATCCCT TCAGCCGAGC 540
 TGGGTATTCT CTCAAAAT ATATGGACCT TGCAGGACTC GAACCTKCGA CCGAACGGTT 600
 ATGAGCCGTT AGCTCTAAC 619

(2) INFORMATION FOR SEQ ID NO: 3572:

50 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 400 base pairs
 (B) TYPE: nucleic acid
 55 (C) STRANDEDNESS: double

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3572:

GGTGAAGACA TCACGTATCA AGAAGCATGG GCAGATGAAG AATATCGTGA AGACTTAAAA 60
 5 GCAGAATTAA TTGATCAAGC GGTACTTCA TTGAGCCACA AGATTATTTC AGTGCGATGA 120
 TTCGTGAAAT TGAAACGCAA GATTTCGATA TAGAACATCT AGCGACGGCG ATTCGCAAAAG 180
 10 TTGAACATC TACATTAGGT GAAGAAAGTG AAAATGACTT TATCGGGCTG TTCAGCGATA 240
 TGGAATTTGAG TTCAACGCGA CTAGGTAAACA ATGTCAAAGA ACGTACTGCT TTAATCTCTA 300
 AAGTCATGGT TAATCTTGAC GACTTACCAT TCGTTCACAG TGACATGGAA ATTGATATGT 360
 15 TAGGTGATGC ATATGAATTC CTAATCGGGC GCTTTCGGGC 400

(2) INFORMATION FOR SEQ ID NO: 3573:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 400 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3573:

CAAATCGTAA CTCGCCGTT CATCTACAA AAGGCACGCC ATCACCCATT AACGGGCTCT 60
 30 GACTACTTGT AAGCACCGG TTTCAGGTTC TATTCTACTC CCCTTCGGG GTGCTTTTCA 120
 CCTTCCCTC ACGGTACTGG TTTACTATCG GTCACTAGAG AGTATTTAGC CTTAGGAGAT 180
 GGTCTCTCCA GATTCCGACG GAATTTACG TGCTCCGTG TACTCAGGAT CCACTCAAGA 240
 35 GAGACAACAT TTGACTAC AGGATTATTA CCTTCTTGA TTCATCTTC CAGATGATTC 300
 GTCTAATGTC GTCTTTGTA ACTCCGTATA GAGTGTCCTA CAACCCCAAC AAGCAAGCTT 360
 GTTGGTTTGG GGCTCTTCCC ATTTCCGTG CGGCTACTAA 400

(2) INFORMATION FOR SEQ ID NO: 3574:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 1051 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3574:

TCCCTCAAAG ATGGATGAGG TTAATAGGTT CGAGGTGGAA GCATGGTGAC ATGTGGCAGC 60

TTTACTTACT ATCTAGTTTT GAATGTATAA ATTACATTCA TATGTCTGGT GACTATAGCA 180
 AGGAGGTCAC ACCTGTTCCC ATGCCGAACA CAGAAGTTAA GCTCCTTAGC GTCGATGGTA 240
 5 GTCGAACCTTA CGTTCGGCTA GAGTAGAACG TTGCCAGGCA TAATATTAAT CCACAGTAGC 300
 TCAGTGGTAG AGCTATCGGC TGTAAACCGA TCGGTCGTAG GTTCGAGTCC TACCTGTGGA 360
 10 GCCATGGCTC cTtGGTCAAG CGGTTAAGAC ACCGCCCTTT CACGCGGGA ACACGGGTTT 420
 GAGTCCCGCTA GtAGTCATTA TTTTGAGAGAA TTAGCTCAGC TGGGAGAGCA TCTGCCCTTAC 480
 AAGCAGAGGG TCGGCGGTTT GAACCCGTCA TTCTCCACCA TTTTGATTAT TAAATTATAT 540
 15 GAATAAGCTG GAGGGGTAGC GAAGTGGCTA AACGCGGCGG ACTGTAAATC CGCTcCTTCG 600
 GGTTCCGGCAG TTCGAATCTG CCCCCCTCCA CCATCTATAT ATTGGGCTAT AGCCAAGCGG 660
 TAAGGCAACG GACTTTGACT CCGTCACTCG TTGGTTCGAA TCCAGCTAGC CCAGCCATTA 720
 20 GAGCCATTAG CTCAGTTGGT AGAGCATCTG ACTTTTAATC AGAGGGTCAG AGGTTCGAAT 780
 CCTCTATGGC TCACTACTTG CACTTTCCAT TTTTGGGAAG TGCTTTTTTT TAGGTTCTcC 840
 ACCAAATGTG GTGGGTATAT AATTAAAGA ACTATTTTTA AAATACAAC TTTAGAGCTT 900
 25 TTATTATTAG GCGGCCAGTC CATTAATTGGG CTGgTTGTC TTCTTTTTTT CTCCTTTGtA 960
 CAAGCTGAAA ATCATCATTA TACGTGCTtA AAGTGTGAAA TTTCTGTAAC CAAAAGAATn 1020
 30 CACTTGATTA ATThnATCTA TATAATGCCT C 1051

(2) INFORMATION FOR SEQ ID NO: 3575:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 476 base pairs
 35 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

40 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3575:

GTGGAGCGCT TAGAAGTgAG AATGCAAGTg TGAgTAGCGA AAGACGGGTG AGAATCCCGT 60
 CCACCGATTG ACTAAGGTTT CCAGAGGAAG GCTCGTCCGC TCTGGGTTAG TCGGGTCCTA 120
 45 AGCTGAGGCC GACACGTATG GCGATGGATA ACAGGTTGAT ATTCTGTAC CACCTATAAT 180
 CGTTTTAATC GATGGGGGGA CGCATAGGAT AGGCGAcGTG sCGATTGGAT TGCACTCTA 240
 50 AGCAGTAAGG CTGAGTATTA GGCAAAATCG GTACTCGTTA AGGCTGAGCT GTgATGGGGA 300
 GAAGACATTG TGTCCTTCGAG TCGTTgATTt CACACTGCCG AGAAAAGCCT CTAGATAGAA 360
 AATAgGTGCC CGTaCCGCAa AaCCGACACA GGTAGTCCAA GATGnGAATT CTAAngTGAA 420

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(2) INFORMATION FOR SEQ ID NO: 3576:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 400 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3576:

TTTGTTCTTT	TTTTAATTTA	TATATTTAAA	ATACACATAT	TCAAGAGCTC	GAGATATAAG	60
TCAATGTACT	AGGCACACAA	TTTAATATTG	ACAGTAATTA	ACCGAACGAA	AATGCGCCCC	120
GGGGCCCCAA	CATAGAGAAT	TTCGAAAAGA	AATTCTACAG	ACAATGCAAG	TTGGCGGGGC	180
CCCAACATAG	AAGCTGGCCA	ATAGTTAGCT	TTCAATAATG	TGCAAGTTGG	GGTAAGGGCC	240
CCAACACAGA	AGCTGGCCAA	TAGTCAGCTT	TCAATAATGT	GCAAGTTGGG	GTAAGGGCCC	300
CAACACAGAG	AATTTCGAAA	AGAAATTCTA	CAGACAATGC	AAGTTGGCGG	GGCCCCAACA	360
CAGAAGCTGG	GCCAATAGTC	AGCTTTTCCA	ATAATGTGGC			400

(2) INFORMATION FOR SEQ ID NO: 3577:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 400 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3577:

TGCATCTTCA	CAGGTACTAT	GATTTCACCG	AGTCTCTCGT	TGAGACAGTG	CCCAAAATCGT	60
TACGCCCTTC	GTGCGGGTCG	GAACCTTACC	GACAAGGAAT	TTGCTACCT	TAGGACCGTT	120
ATAGTTACGG	CCGCCGTTTA	CTGGGGCTTC	GATTCGTAGC	TTGCAGAAAC	TAACCACTCC	180
TCTTAACCTT	CCAGCACCGG	GCAGGCGTCA	GCCCTATACA	TCACCTTACG	GTTTAGCAGA	240
GACCTGTGTT	TTTGATAAAC	AGTCGCTTGG	GCCTATTAC	TGCGGCTCTT	CTGGGCGTTA	300
ACCCTAAAGA	GCACCCCTTC	TCCCGAAGTT	ACGGGGTCAT	TTTGCCGAGT	TCCTTAACGA	360
GAGTTGCTC	GCTCACCTTA	GAATTCTCAT	CTTGACTAAC			400

(2) INFORMATION FOR SEQ ID NO: 3578:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 400 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3578:

5 TAACTTAACA CGACTTCTTA AGTCATTAG TTTTAATGTT TGATGTGTTT CTGCTAAACC 60
 AATCTCCCAA GGAACACCGG CATGCTGAAT ACTCGTTTTG GGTGAAGCCC TGTACCACCA 120
 TCGTAACCAC TGATGACAAAT TTTATCTGCA AATGCTTTTG CCACCCGAGA TGCAATGGTA 180
 10 CCAACACCTG TTTTCGAAAC TAATTTTACC GCGATATCTG CATCTTTATT CGCATTTTTT 240
 AAATCATGTA TCAAGTGGCG TAAATCTTCT ATTGAATAAA TATCATGATG TGGCGGTGGT 300
 GAAATCAGAC CGATACCTGG CGTTGGACCC TCTTGCTTC GCAATCCACG GATATACCTT 360
 15 AGTACCAGGT AATTGGACCA CCTTCACCAG GCTTGCACC 400

(2) INFORMATION FOR SEQ ID NO: 3579:

(i) SEQUENCE CHARACTERISTICS:

20 (A) LENGTH: 400 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3579:

25 AGCTACACCG CTTTATATAG TTGTAAATA ATATGTTGGA GACTAGCGGG ATCGAACCGC 60
 30 TGACCTCCTG CGTGCAAAGC AGGCGCTCTC CCAGCTGAGC TAAGCCCCCA TAATAATTAC 120
 AGTATATCGG GAAGACAGGA TTGGAACCTG CGACCCCTTG GTCCCAAACC AAGTGCTCTA 180
 CCAAGCTGAG CTACTTCCCG TATAATTAA CCGCCGATA GGAGTCGAAC CCATAACCTC 240
 35 TTGATCCGTA GTCAAACGCT CTATCCAATT GAGTACGGG CGCATATGTT TTTATTGAAA 300
 ATGGTGCCGA GGACCGGAAT CGAACCGGTA CGTGATCACT CACCGCAGGA TTTTAAGTCC 360
 TGTGCGTCTG CCAGTTCGCG CACCCCGGCA CTATAAAAT 400

(2) INFORMATION FOR SEQ ID NO: 3580:

(i) SEQUENCE CHARACTERISTICS:

45 (A) LENGTH: 400 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3580:

50 ACGTAAATAA CCATAACGAC GTGCCTCAAA GGCATTGTA GAGACTTTCG CAAATGCGAT 60

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TATGCGATCA GCCATTCTGT CAAGGCCACC GCCACTCGGT AATAAGCCAA CACCTGCTTC 180
 AACAGACCG ATATATGTTT CACTTGCAGC GACAACAATA GGTGAGTAAA GTACAAGCTC 240
 5 ACAGGCCACC CCTAAGGCAC GACCTTGAAC AGCTGTGACT ACTGGTTTCA AACTATACTT 300
 CAAAGGATTA AAGCTATAAT GTAATTATC AATTGATTGT GCACGACATC ATCTACAAGA 360
 10 CGTCTTCCA TGGCCCTTTT TCCATTAGA AAGGGTTAGC 400

(2) INFORMATION FOR SEQ ID NO: 3581:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 400 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3581:

ATGTCACTGT TGGTACGGCT TTTCCAGAAG GATTACAAGG CCAAAACATT GCACGAACGA 60
 TTGCATTGCG TGGGATTAT CTGACACGGT ACCGGGTCAA ACAGTGAATC GCTACTGCTC 120
 25 ATCAGGATTA CAAACCATGC GATTGCAGCC AATCAAATTA TGGCTGGTCA AGGAGATATA 180
 CTTGTAGCTG GTGCGTTGAA TTGATGAGTG CCGTACCAAT GGGTGGCAAC GAGCCCAACA 240
 30 ACAATCCAAC CTTACAATAT GATGATATAG GTGCGTCATA TCCTATGGGT TTAAGTCTGT 300
 AAAATGTAGC ATCCCAATTG GACGTATCAC GCGAAGATCA AGATGCTTAT GCTGTCAGAA 360
 GTCATCAACG TGCCATGAC GCACAACGTG ATGGGTCCGG 400

(2) INFORMATION FOR SEQ ID NO: 3582:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 400 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3582:

AACTCGTTGC GCTCTTTTCT CGTTTCGTCA GATTCAAACG TTTTCACTTC GCCAAGCCAT 60
 TTTTCTTTGT GTTTACTTTT TATTTTGACG TTTTAGACAT AAAAAAAGA GACCTTGGCG 120
 50 TCTCAATGCG GCTCATGCGA TCCATTTTTT GCCTGGCAAC GTTCTACTCT AGCGGAACGT 180
 AAGTGGCTA CCATCGACGC TAAGAACCTT TCTTGACTTG TGACAATGCG TTGCTTCTTT 240
 CCTCTCTCTC GGTCTCTGCT TACTCAITTA GCTCTACTAA ACTCGTTGGC CTCTTTTCTC 300

ATTTTGACGT TTTAGACATA AAAAAAGAG ACCTTCGGT

400

(2) INFORMATION FOR SEQ ID NO: 3583:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 400 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3583:

AAGCAGGCGC TCTCCAGCT GAGCTAAGCC CCCAATAGG TATTAAATTA ATGGTGGGCC	60
TAAGTGGACT CGAACCACCG ACCTCACGCT TATCAGGCGT GCGCTCTAAC CAGCTGAGCT	120
ATAGGCCCAT TAATTGAAT GAACAAACAT TCAAACTGA ATACAATATG TCACGTTATT	180
CCGCATCTTC TGAAGAAGAT GTTCCGAATA TATCCTTAGA AAGGAGGTGA TCCAGCCGCA	240
CCTTCGATA CGGCTACCTT GTTACGACTT CACCCCAATC ATTTGTCCA CCTTCGACGG	300
CTAGCTCCTA AAAAGGTTAC TCCACCGGCT TCGGGTGTTA CAAACTCTCG TGGTGTGACG	360
GGCGGTGTGT ACAAGACCCG GGAACGTATT TCACCGTAGC	400

(2) INFORMATION FOR SEQ ID NO: 3584:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 400 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3584:

ACTTATTGG CGATATTTTA AGTGATGAAG CTTCAGTGAT TCCTGGTTCA CTGTTTAT	60
CACCTTCGTC TAGTTTTAGT AACGATGGTC CAAGATTGTA TGAGCCTATT CATGGATCAG	120
CACCAGATAT TGCAGGTAA AACGTTGCCA ATCCATTGG AATGATTCTA TCTTTAGCGA	180
TGTGTTTACG TGAAGCTTA AATCAACCAG ATGCTGCAGA TGAATTAGAA CAACATATTT	240
ATAGCATGAT TGAACATGGG CAAACGACAG CAGATTTAGG CGGCAAAATT AATACTACTG	300
ATATTTTCGA AATTCTATCT CAAAAATGA ATCACTAAGG GGGGAGATGT AAATGGGGTC	360
AAACATTATT TGACAAGTGT TGGACAGAC ATGTGTTATA	400

(2) INFORMATION FOR SEQ ID NO: 3585:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 400 base pairs

(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

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(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3585:

ACTGATGACA ATTTTATCTG CAAATGCTTT TGCCACCCCA GATGCAATGG TACCAACACC	60
10 TGTTTTGAA ACTAATTTTA CCGGATATC TGCATCTTTA TTCGCATTTT TCAAATCATG	120
TATCAGTTGC GCTAAATCTT CTATTGAATA AATATCATGA TGTGGCGGTG GTGAAATCAG	180
ACCGATACCT GCGTTGACC CTCCTGCTTT CGCAATCCAC GGATATACCT TAGTACCAGG	240
15 TAAATTGACCA CCTTCACCAG GCTTTGCACC TTGCGCAACT TTAATTGAA TTCTTTGGG	300
CATGTTGTAA ATAATCACTA GTTACACCAA AACGCCAGA AGCAACTTGT TTAATCGCAC	360
TTACTTTGGT GGCTCCATC AACTTGACT TCATAACGGT	400

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(2) INFORMATION FOR SEQ ID NO: 3586:

(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 400 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

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(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3586:

30

TACAAGTATT ACCATTATCT CnAGAGGATT CTAGATAAGG GGCATGGATC ATTTGTCTTC	60
TTATGAATTI GAGCCAGATA AAGAATCTAT CTTAAGTGTA ATCTTGACCT CAATATGTTG	120
35 AGAGTTTGAT TTACGGAACA ATATTAGACG CAAAAGCAAG TGAGCATGCA ACACGTATGA	180
CTGCGATGAA AAATGCCACT GATAATGCAA CTGAACCTAT TGATGACTTA TCATTAGAAT	240
ATAACAGAGC GAGACAAGCA GAAATTACGC AACAAATTAC TGAAATTGTT GGTGTTCCG	300
40 CAGCGCTTGA ATAATATTTA AnGGAGGAAA ATAGCATGGG AATTGGCCGT GTACTCAAGT	360
TATGGGTCCT GTAATTGATG TTGATTGTA ACATAACGAG	400

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(2) INFORMATION FOR SEQ ID NO: 3587:

(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 400 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

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(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3587:

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AGGATTGCAA CTTGCGACCC CTTGGTCCCA AACCAAGTGC TCTACCAAGC TGAGCTACTT 120
 CCCGTATAAT TAACGGGCCC GATAGGAGTC GAACCCATAA CCTCTTGATC CGTAGTCAAA 180
 5 CGCTCTATCC AATTGAGCTA CGGGCGCATA TGTTTTATT GAAAAATGGTG CCGAGGACCG 240
 GAATCGAACC GGTACGTGAT CACTCACCGC AGGATTTTAA GTCCTGTGCG TCTGCCAGTT 300
 CCGCCACCCC GGCCTATAA AAATGGAGCA GAAGACGGGA TTCGAACCCG CGACCCCAAC 360
 10 CTTGGCAAGG TTGTATTCTA CCGGTGAAC TCTCTGTCAT 400

(2) INFORMATION FOR SEQ ID NO: 3588:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 400 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

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(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3588:

TACTATTGAC ATGTGTGAAC CCTATGTCCG ATTATTTGCG GACCTATTTC CTAATGCAGC 60
 25 TATTATTTTT GACAGATTCC ATATCGTTCA ACATTTAAAT AGAGAACTTA ATAAGTATCG 120
 TGTACAAGTT ATGAATGAAT ACCGTAATAA AAAAGGACCT GATTATACAA TTTTAAAGAA 180
 TAACTGGAAA GTCCTATTGA TGGATACTAG TAAAACCAT TTTAGTAAAT ACAGATGAAA 240
 30 TAAATCTTTT AAGGGCTTAT AAACGCTCAT CTGACATTGT AGAATTCATG CTTTCAAAAG 300
 ACGATATACT ACGACACTCC TACGAACTTG TCCAGGATT ACGAAAAGAC CTAAGGGTAT 360
 35 GTAATTGGGC CTAAATTTAT TAATCGTTTA AATTCCGTTA 400

(2) INFORMATION FOR SEQ ID NO: 3589:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 400 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

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(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3589:

AGAGCGAAGC GACGAGAAGC TTGCTTCTCT GATGTTAGCn GCGACGGGT GAGTAACAG 60
 TGGATAACCT ACCTATAAGA CTGGGATAAC TTCGGGAAAC CGGAGCTAAT ACCGATAAT 120
 50 ATTTTGAAAC GCATGGTTCA AAAGTGAAG ACGGTCTTGC TGTCACCTAT AGATGGATCC 180
 GCGTCGATT AGCTAGTTGG TAAGGTAACG GCTTACCAAG GCAACGATGC ATAGCCGACC 240

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AGTAGGGAAT CTTCGCAAT GGGCGAAAGC TGACGGAGCA ACGCGCGTG AGTGATGAAG 360
 GTCTTCGGAT CGTAAACTC TGTATTAGG GAAGAACATA 400

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(2) INFORMATION FOR SEQ ID NO: 3590:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 509 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

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(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3590:

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GTTAgGAGAG CGTCTAAGG GCGTTGAAGC ATGATCGTAA GGACATGTGG AGCGCTTAGA 60
 AGTGAGAATG CCGGTGTGAG TAGCGAAAGA CCGGTGAGAA TCCTCCACC GATTGACTAA 120
 GGTTCACAGA GGAAGGCTCG TCGCTCTGG GTTAGTCGGG TCCTAAGCTG AGGCCGACAg 180
 gTAaGGCGAT GGATAACAGG TTGATATTCC TGTACCACCT ATAATCGTTT TaATCGATGG 240
 GGGGACGCAT AGGATAGGCG AAcGTGcGAT TGGATTGCAC GTCTAAGCAG TAAGCGCTGAG 300
 TATTAGGCAA ATCCGGTACT CGTTaAGGCT GAGCTGTGAT GGGGAGAAGA CATTGwGTCT 360
 TCGAGTCGTT GATTTCACAC TGCCGAGAAA AgCCTCTAGA TAGAAAATAG GTGCCCGTAC 420
 CGCAAACCGA CACAGTAAT CCAAGATGAG AATTCTAAGG TGAGCGAGCG AACTCTCGTT 480
 AAGGNACTCG GCAAAATGAC CCGTAACT 509

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(2) INFORMATION FOR SEQ ID NO: 3591:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 400 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

35

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3591:

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ATTTCATTATG AATTCAAGCT TATTTAAAC TCTTTATTCA CTGGTTTTG CTGGTAAAA 60
 TCTATATTTT ACTTACTTAT CTAGTTTICA ATGTACAAAT AATGGTGGAG ACTAGCGGGA 120
 TCGAACCGCT GACCTCTGCG GTGCAAAGCA GCGCTCTCC CAGCTGAGCT AAGCCCCCAA 180
 ATAGGTATTA AATTATGGT GGGCCTAAGT GGACTCGAAC CACCGACCTC ACGCTTATCA 240
 GCGTCGCGCT CTAACCACTG GAGCTATAGG CCCATTAAAT TGAATGAACA AACATTCAAA 300
 ACTGAATACA ATATGTCACG TTATTCCGCA TCTTCTGAAG AAGATGTTC GAATATATCC 360

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(2) INFORMATION FOR SEQ ID NO: 3592:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 440 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3592:

TGGGnAACGC AACATCCTTT TCCTAACTTAA CATATATTTT GGGACCTTAg CTGTGGTCT	60
GGGCTGTTTC CCTTCGAAC ACGGACCTTA TCACCCATGT TCTGACTCCC aAGTTAAATT	120
AATTGGCATT CGGAGTTTGT CTGAATTCGG TAACCCGAGA GGGGCCCTC GTCCAAACAG	180
TGCTCTACCT CCAATAATCA TCACCTTGAGG CTAGCCCTAA AGCTATTTCG GAGAGAACCA	240
GCTATCTCCA GGTTCGATTG GAATTTCTCC GCTACCTCA GTTCATCCG TCACTTTTC	300
ACGTAAgTCG GTTCGGTCTC CCATTcAGTG TTACCTGAAC TTCAACTGa CCAAGGGTAG	360
ATCACCTGGT TTCcGsTsT ACGACCAAAT AsTAAACGCC CTATTcAGAC TCGCTTTGCG	420
TAnGGCTCCA CATTACTGgn	440

(2) INFORMATION FOR SEQ ID NO: 3593:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 400 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3593:

TAAAGAACCC AATTTTATTT GGTGCACCAC TAGTATTGAA TCCTGTGTTC TTTATTCCAT	60
TTGTATTAGC ACCAATTGTT AACGTATGGA TTTTCAAAC TTTCTGTGAA GTGTAGGAA	120
TGAATAGTTT TAGTGGAAT TTACCTTGGA CAACACCAGG TCATTGGGC ATTATCATGG	180
GTACAGGTTT TGTTTATGG TCATCTGATC TAGCTATTAC TTTGATTGTT GTAGATATTA	240
TTATnTACTA CCCATTCTTA AAAGTTTATG ATAGTGAAT TCTTGATGAA GAAGAAGGAC	300
GTAAGAAGAG TAATTCAGAT TTAAGAGAAA AAGTTGCAGC AAACCTTTGA TACGAAAAAA	360
GCTGATTCAA TTTTAGCGGC AAGTGGTGTA TCAGACGATG	400

(2) INFORMATION FOR SEQ ID NO: 3594:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 409 base pairs

(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

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(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3594:

AAGGGAATCG	AAITTTCTTT	CTCTTCCTCC	GGGTACTAAG	ATGTTTCAGT	TCTCCGGGTG	60
10	TGCCTTCTGa	TATGCTATGT	ATTACATAT	CGATAACATG	ACATAACTCA	120
	CCCCATTCGG	AAATCTCTGG	ATCAAAGCTT	aCTACAGCTC	CCCAAAGCAT	180
	GTAACTGCTT	TCATCGGCTT	CTAGTGCCAA	GGCATCCACC	GTGCGCCCTT	240
15	TCTATGTTTC	CACCATTTTT	ATAAGTCAAA	CGCTCACATA	CGGCTTGGTT	300
	TAAAGTCTCA	TTTACATAAG	TAAACTCTGC	TTTAAAATAA	TTTAACCTAT	360
	ACGTTTTTCTT	TTATAAAAAG	ATTAAAAcGC	GTTAtTAATC	CTCTCGCTC	409

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(2) INFORMATION FOR SEQ ID NO: 3595:

(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 400 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

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(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3595:

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AATATAAGCC	CTGGATCATA	CATGACCTGT	ATTTGGGCAA	TCCCTTCGTC	TACATCTTCT	60
GCCCACTCAT	TCAATATTTG	TTTTGCAATA	TCATCAGCTT	CTTCAGCTGC	TTCAAAACAAT	120
35	ACTGGCACAT	GTGTGCTTCT	CGTAAATCCT	CCGGCAATCA	TGCGCTTTTT	180
	GTTCGAGCAC	GTTGCTCAAA	CGTTGTATTT	TCAGTTGGAC	GATACAATAA	240
	TCATTGTCCT	TATGAAGCTC	ACCATTATCA	ATATGACCTT	GGATTATTCT	300
40	CCCAATGGCC	TGGTACCAAG	CGTCCATACA	AAAGATCGGT	TCTGGCTTGG	360
	GTAATTTCCA	ATTGCGCCTA	GTTAATGGCA	GCGGTTTTAA		400

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(2) INFORMATION FOR SEQ ID NO: 3596:

(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 596 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

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(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3596:

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CTGCGAACC CGAAGACGG ATTTACAGTC CGCCGGSTTT AGCCACTTCG CTACCCCTCCA 120
 GCTTATTCAT ATAATTTAAT AATCAAAATG GTGGAGAATG ACGGGTTCGA CCGCGGACCC 180
 5 TCTGCTTGTA AGGCAGATGC TCTCCAGCT GaGCTAATTC TCCAAAATAA TGACTCCTAC 240
 GGGAGCTGAA CCCGTGTTAC CGCCGTGAAA GGGCGTGTCT TAACCGCTTG ACCAAGGAGC 300
 CATGGCTCCA CAGGTAGGAC TCGAACCTAC GACCGATCGG TTAACAGCCG ATAGCTCTAC 360
 10 CACTGAGCTA CTGTGGATTA ATATTATGCC TGGCAACGTT CTACTCTAGC GGAACGTAAG 420
 TTGACTACC ATCGACGCTA AGGAGCTTAA CTTCGTGTGT CGGCATGGGA ACAGGTGTGA 480
 15 CCTCCTGTCT ATAGTCACCA GACATATGAA TGTAATTTAT ACATTCAAAA CTAGATAGTA 540
 AGTAAAGTG ATTTTGCTTC GCAAAACATT TATTTTGATT AAGTCTTCGA TCGATT 596

(2) INFORMATION FOR SEQ ID NO: 3597:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 400 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3597:

TCATCTTGAG GGGGGCTTCA TGCTTAGATG CTTTCAGCAC TTAICCGTC CACACATAGC 60
 30 TACCCAGCTA TGCCGTGGC ACGACAACCTG GTACACCAGA GGTATGTCCA TCCCGTCTCT 120
 CTGTACTAA GGACAGCTCC TCTCAAATTT CCTACGCCCA CGACGGATAG GGACCGAACT 180
 GTCTCACGAC GTTCTGAACC CAGCTCGCGT ACCGCTTTAA TGGGCGAACA GCCCAACCTT 240
 36 TGGGACCGAC TACAGCCCCA GGATGCGATG AGCCGACATC GAGGTGCCAA ACCTCCCCGT 300
 CGATGTGAAC TCITGGGGGA GATAAGCCTG TTATCCCCGG GGTAGCTTTT ATCCGTTGAG 360
 40 CGATGGCCCT TCCATGCGGA ACCACCGGAT CAATAAAGTC 400

(2) INFORMATION FOR SEQ ID NO: 3598:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 397 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3598:

AACCAACGGC AGCAACTACA TGACCTAATT CTGTGCTGA CTCTACATTT AGTAGCTCTA 60

CACTTCAATT GTACCAATCA ATCGTTGACG ATCTTGATCG TAAAGCCATG TAGCAATACC 180
 ACGATACTGT CCGTCAACGAC TCGCGTATGC ATGCGCACTT GCTTCTGCAC CACGCGTATC 240
 5 ATTTCTCTGT GCTAAACAA CAGCATGTAT GCCATTATA ACACCTTTAT TATGTGTTGC 300
 TGCACGATGA ATATCTACTT GGGCCAATAC AGAAGCACGT TCCATCGTTT GcAACCTCTT 360
 CTCGACTTCT CTCGCCCTT GGCTAAATCT TTAACAT 397

(2) INFORMATION FOR SEQ ID NO: 3599:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 400 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3599:

AACCCCTGGG ACCGACTACA GCCCCAGGAT GCGATGAGCC GACATCGAGG TGCCAAACCT 60
 CCCCGTCGAT GTGAATCTT GGGGGAGATA AGCCTGTTAT CCCCGGGTA GCTTTTATCC 120
 25 GTTGAGCGAT GGCCTTCCA TGCGGAACCA CCGGATCACT AAGTCGCTT TTCGACCTG 180
 CTCGACTTGT AGGTCTCGCA GTCAAGTCC CTTATGCCCT TACACTCTAT GAATGATTTC 240
 CAACATTCT GAGGGAACCT TTGAGCGCCT CCGTTACCTT TTAGGAGGCG ACCGCCCCAG 300
 30 TCAAACTGCC CGCTGACAC TGTCTCCAC CAGATAAGT GTGCGGGTTA GAAAGCCAAC 360
 ACAGCTAGGG TAGTATCCCA CCAGCGCTC CAAGTAAGC 400

(2) INFORMATION FOR SEQ ID NO: 3600:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 400 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3600:

ATCTGAATCT GAGTCGTTGT CTGAGTCCGA ATCGCTATCT GAATCTGAGT CGCTATCTGA 60
 GTCTGAGTCG CTATCTGAAT CTGAGTCGCT GTCTGAATCT GAATCACTGT CTGAGTCTGA 120
 50 GTGCGTGTCT GAGTCTGAAT CGCTGTCTGA ATCTGAGTCG CTATCTGAGT CTGAATCTGA 180
 ATCACTGTCT GAGTCCGAAT CGCTATCTGA ATCTGAATCG CTATCTGAGT CTGAGTCGCT 240
 ATCCGAATCT GAGTCGCTAT CTGAGTCTGA GTGCTATACC GAGTCTGAAT CGCTGTCTGA 300

GGTCTGGAAT CTGAhTCGCT AACTGAAATC TGAGTCGCTA

400

(2) INFORMATION FOR SEQ ID NO: 3601:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 400 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3601:

ATTTAATACC TATTGGGGG CTTAGCTCAG CTGGGAGAGC GCCTGCTTG CAGCAGGAG 60
 GTCAGCGGTT OGATCCCGCT AGTCTCCACC ATTATTTGTA CATTGAAAAC TAGATAAGTA 120
 AGTAAAAATAT AGATTTTACC AAGCAAAACC GAGTGAATAA AGAGTTTTAA ATAAGCTTGA 180
 ATTCATAAGA AATAATCGCT AGTGTTTCGAA AGAACATCCA CAAGATTAAT AACGCGTTTA 240
 AATCTTTTAA TAAAGAACG TAACTTCATG TTAACGTTTG ACTTATAAAA ATGGTGGAAG 300
 CATAGGTTAA GTTATTAAGG GCGCACGGTG GGATGCCTTG GCACTAGAAG CCGATGAAG 360
 GhCGTTACTA ACGACGATAT GCTTTGGGGA GCTGTAAGTA 400

(2) INFORMATION FOR SEQ ID NO: 3602:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 396 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3602:

GCTGTCTGAG TCGGAATCAC TGtnggagTC AGAATCGCTG TCTGAGTCGG AATCACTGTC 60
 GGAATCTGAA TCGCTATCTG AATCTGAATC GCTATCTGAA TCCGAGTCAC TGTCTGAGTC 120
 AGAATCGhTA TCTGAATCTG AGTCACTGTC GGAATCTGAG TCACTGTCTG AGTCAGAATC 180
 GCTATCTGAA TCCGAGTCAT TGTCTGAGTC GGAATCGCTC GCTGAGTCGG AATCGCTGTC 240
 TGAATCTGAA TCACTCGCTG AGTCTGAATC ACTTGCTGAA TCTGAATCAC TCGTGAATC 300
 TGAACCACTA TCTGATGTAG GAATCACTAC CCGAATCTGA AnCGCTATCT GAATAAGAAT 360
 CGCTGCCAGA TCTGAACCTG GGGTCAGAAT CTGAAT 396

(2) INFORMATION FOR SEQ ID NO: 3603:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 529 base pairs

(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

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(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3603:

TTTCTATCT GTAATTTTAT CGTAAGATT TTTCGCAATG AGATTGGAT CGTnTTTGTC	60
CACTACAATA TCTAATAGTT TACTTTAAG TCCAGCATT ACAAAAAGTG CTGCCAGTTG	120
AGCGCCCAT GTGCCTGCGC CAAGAACGGT TACTTTATTA ATTGTCATAG TGATTCTCTCC	180
AATTTAGTTG AGGATAAGAT AACCATTAAG ATAATTGGAA TAACGTTGCT ATTTTATAAA	240
ATTAATTAAG TATCTTTGAC AGTCATCTTA GCCTCTTATT TAAGGA AAAA GCTTTATGCT	300
TAAAAAAGT CTTTTTTAGT GAAATTAATG CATCTCATAT AATTATTGCT TATTTATACG	360
AAAGCmGaAT CTCCAGTcAA AGCGCGTCCA ATTACTAAGG CATTAAATTC ATGTGTACCT	420
TGTTACGTGT AAATCGCTTC TGCATCAGAG AAGAAACGTG CAATATCATA ATCGTCAGCT	480
AGTATGCCAT TACCACCTGT AATACGCGG CCCATAGCTA CnTCTCAC	529

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(2) INFORMATION FOR SEQ ID NO: 3604:

(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 399 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

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(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3604:

CACAAGATAA GCATTGTAGA TGTGGATGCT TTAACGGGC AAGCGATTGG TCGTCCTAAA	60
ACAGGTACAT ATGCGCTATC TGACCTAGTC GGTTTAGATA TTGCAGTGTC TGTAAATAAA	120
GGCATGCAAC AAGTACCTGA AGAAACACCT TATTTTCATG ATGCAAAAT TGTAAATACG	180
TTGTTTGACA ATGGCGCACT CGGACGTAAA ACGAAACAAG GATTTTACAA AAAGGATAAA	240
GAAACTAAG CTCGACTTGT TTACGATGTT GAAAAACAAG ATTATGTACC TGTATCGCAA	300
CCACAATTAC CAATTTTAAA TGAATTTAAT AAAGACTTAG TGcATAACCT TGATACCATA	360
TTCCAATGCG CAAGACGAGC GGGGACTATT TTTATGGG	399

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(2) INFORMATION FOR SEQ ID NO: 3605:

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(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 400 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

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(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3605:

5 ATCACTTGAG GCTAGCCCTA AAGCTATTTT GGAGAGAACC AGCTATCTCC AGGTTGCGATT 60
 GGAATTCTC CGCTACCCCTC AGTTTCATCCG CTCACITTTTC AACGTAATCG GTTCGGTCTC 120
 CCATTCACTG TTACCTGAACTTCAACCTGA CCAAGGGTAG ATCACCTGGT TTCGGGTCTA 180
 10 CGACCAATA TTAACGCCCC TATTCACTAGT CGCTTTCGCT ACGGCTCCAC ATTACTGCT 240
 TAACCTTGCA TCAAACTGTA ACTCGCCGGT TCATTCTACA AAAGGCAAGC CATCACCCAT 300
 TAACGGGCTC TGGACTACTT GTAAGCACAC GGTTCAGGT TCTATTTTAC TCCCCTTCGG 360
 15 GGGTGGCTTT TCACCTTTCC CTCACGGTAA TGGGTTCACT 400

(2) INFORMATION FOR SEQ ID NO: 3605:

(i) SEQUENCE CHARACTERISTICS:

- 20 (A) LENGTH: 400 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3606:

25 AAATCTGCG GTGAGTGATC ACTAACCCTG TTCGATTCCG GTCCTCGGCA CCATTTTCAA 60
 30 TAAAAACATA TCGCCCGCTA GCTCAATTGG ATAGAGCGTT TGACTACGGA TCAAGAGGTT 120
 ATGGGTTTGA CTCCTATCGG GCGCGTTAAT TATACGGAA GTAGCTCAGC TTGGTAGAGC 180
 ACTTGGTTTG GGACCAAGGG GTGCGAGGTT CGAATCTGT CTTCGCGATA TACTGTAATT 240
 35 ATTATGGGGG CTTAGCTCAG CTGGGGAGAG CGCCTGCTTT GCACGCAGGA GGTGAGCGGT 300
 TCGATCCCGC TAGTCTCCAC CATATTATTT ACAAACTATA TAAGGCGGTG TAGCTCAGCT 360
 GGCTAGAGCG TACGGTTTCA ACCCGTGAGG TCGGGGGTTC 400

(2) INFORMATION FOR SEQ ID NO: 3607:

(i) SEQUENCE CHARACTERISTICS:

- 45 (A) LENGTH: 400 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3607:

50 GGGTGTGCTT CTGATATGCT ATGIATTCAC ATATCGATAA CATGACATAA CTCATGCTGG 60
 GTTTCACATT CGGAAATCTC TGGATCAAAG CTTACTTACA GCTCCCCAAA GCATATCGTC 120

TTAATCTATG TTTCACCAT TTTTATAAGT CAAACGTAA CATGAAGTTA CGTTCCTTTA 240
 TAAAAAGATT TAAACGGTT ATTAATCTTG TGAGTGTTCT TTCGAACACT AGCGATTATT 300
 TCTTATGAAT TCAAGCTTAT TTAACACTCT TTATTCACCT GGTTTTGCTT GGTAAAACTT 360
 ATATTTTACT TACTTATCTA GTTTCATG TACAAATAAT 400

(2) INFORMATION FOR SEQ ID NO: 3608:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 400 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3608:

TAGTTTTCAA TGTACAAATA ATGGTGGAGA CTAGCGGGAT CGAACCGCTG ACCTCCTGCG 60
 TGC AAAAGC CGCTCTCCCA GCTGAGCTAA GCCCCCAAT AGGTATTAAA TTAATGGTGG 120
 GCCTAAGTGG ACTCGAACCA CCGACCTCAC GCTTATCAGG CGTGCCTCTC AACAGCTGA 180
 GCTATAGGCC CATTAAATTG AATGAACAAA CATTCAAAAC TGAATACAAT ATGTCACGTT 240
 ATTCCGCATC TTCTGAAGAA GATGTTCCGA ATATATCCTT AGAAAGGAGG TGATCCAGCC 300
 GCACCTTCGG ATACGGCTAC CTTGTTACGA CTTACCCCA ATCATTTGTC CCACCTTCGA 360
 CGGCTAGCTC CTAAAAGGTT ACTCCACGG CTTCGGGTGT 400

(2) INFORMATION FOR SEQ ID NO: 3609:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 400 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3609:

AGGGCACTCT TACTGGGCGT GTTAAATTAC TAAATTCAAT CAGCAGAAGA ACTAGGACAT 60
 GGGCGCTTTA AAATTATTGA AACACATGCA TTAAGAAGAT TACAAGCAGT ATTGGGTTTT 120
 CATAATGACC CATCGCGTTC GGTAGGTACA TTTGCAATCA AAACAGGGGC AATTACATCA 180
 GCAGTAGATC GTTTTGAGTT TCATATTAAA GCGTGGGGTG GTCATGCTGC AAACCAGAAC 240
 AATGCAACGA TCCAGTTATT GTGTTGGCGC AATTGATTAA TAGTATTCAA TCCATAGTTA 300
 GTAGAAATCT ATCTCGGTTT GATGAAGCGG TAGTAACAAT TGGACAAATA TCATGTGGTA 360

(2) INFORMATION FOR SEQ ID NO: 3610:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 400 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3610:

AGGGAATCGA ATTTTCTTTC TCTTCCTCCG GGTACTAAGA TGTTCAGTT CTCCGGGTGT	60
GCCTTCTGAT ATGCTATGTA TTCACATATC GATAACATGA CATAACTCAT GCTGGGTTC	120
CCCATTCCGA AATCTCTGGA TCAAAGCTTA CTACAGCTC CCCAAGCAT ATCGTCGTGA	180
GTAACGTCCT TCATCGGCTT CTAGTGCCAA GGCATCCACC GTGCGCCCTT AATAACTTAA	240
TCTATGTTTC CACCATTITT ATAAGTCAAA CGCTCACATA CGGCTTGTT TTCATTATTT	300
TAAATGCTCA TTTACATAAG TAAACTCTGC TTTAAATGA ATTTAACTCA TTGTCGTCTA	360
AACTTTTTCG TTTTATAAAA AGATTAAAC GCGTTGATTT	400

(2) INFORMATION FOR SEQ ID NO: 3611:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 400 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3611:

GAGCTAGGCC GGCAATATGT AAGAATAAAT GGTGGAGAAT GACGGGTTCG AACCGCCGAC	60
CCTCTGCTTG TAAGCAGAT GCTCTCCAG CTGAGCTAAT TCTCCGATT AAAACTGCCT	120
GGCAACGTTT TACTCTAGCG GAATTAAGTT GACTACTACC CGACGCTAAG GAGCTTAACT	180
TCTGTGTTTC GCATGGGAAC AGGTGTGACC TCCTTGCTAT AGTCACCAGA CATATGAATG	240
TAATTATAC ATTCAAAAC AGATAGTAAG TAAAGTGAT TTTGCTTCG AAAACATTTA	300
TTTTGATTAA GTCTTCGATC GATTAGTATT CGTCAGCTCC ACATGTCCAC ATGCTTCCAC	360
CTCGAACCTA TTAACCTCAT CATCTTTGAG GGATCTTAAT	400

(2) INFORMATION FOR SEQ ID NO: 3612:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 400 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3612:

5 ACCCAGCTCG CGTACCGCTT TAATGGGCGA ACAGCAATCC CTTGGGACCG ACTACAGCCC 60
 CAGGATGCGA TGAGCCGACA TCGAGGTGCC AAACCTCCCC GTCGATGTGA ACTCTTGGGG 120
 GAGATAAGCC TGTTATCCCC GGGGTAGCTT TTATCCGTTG AGCGATGGCC CTTCATGCG 180
 10 GAACCACCGG ATCACTAAGT CCGTCTTTCG ACCCTGCTCG ACTTGTAGGT CTGCGAGTCA 240
 AGCTCCCTTA TGCTTTTACA CTCTATGAAT GATTTCACAC CATTCTGAGG GAACCTTTGA 300
 15 GAGCCTCCGT TACCTTTTAG GAGGCGACCG CCCCGAGTCAA ACTGCCCGCC TGACACTGTC 360
 TCCCACCACG ATAAAGTGTnC GGGGGTTAGA AAGCCAACAC 400

(2) INFORMATION FOR SEQ ID NO: 3613:

20 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 487 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3613:

ACTTACAGCT CCCCAAAGCA TATCGTCGTT AGTAACGTCC TTCATCGGCT TCTAGTGcAA 60
 30 GGCATCCACC GTGCGCCCTT AATAACTTAA TCTATGTTTC CACCATTTTT ATAAGTCAAA 120
 CGCTCACATA CGGCTTCGTT TTCATTATTT TAAATGCTCA TTTACATAAG TAAACTCTGC 180
 35 TTTAAAAATA TTTAACTCAT TGCTGCTAA ACGTTTTCTT TTATAAAAAA ATTAAACGC 240
 GTTATTAATC TTGTGAGTGT TCTTTCGAAC ACTAGCGATT ATTTCTTATG AATTCAAGCT 300
 TATTTAAAAA TCTTTATTCA CTCGGTTTTG CTGCTAAAA TCTATATTTT ACTTACTTAT 360
 40 CTAGTTTTCA ATGTACAAAT AATGGTGGGC CTAAGTGGAC TCGAACCACC GACCTCACGC 420
 TTATCAGGCG TGCCTCTTAA CCAGCTGAGC TATAGGCCCA TTTTTTGAa TGTAAATAA 480
 ACATTCA 487

(2) INFORMATION FOR SEQ ID NO: 3614:

45 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 400 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

ACCGTACGCT CTAGCCAGCT GAGCTACACC GCCTTATATA GTTTGTAAT AATATGGTGG 60
 AGACTAGCGG GATCGAACCG CTGACCTCCT GCGTGCAAAG CAGGCGCTCT CCCAGCTGAG 120
 5 CTAAGCCCCC ATAATAATTA CAGTATATCG GGAAGACAGG ATTGGAACCT GCGACCCCTT 180
 GGTCCCAAC CAAGTGnTCT ACCAAGCTGA GCTACTTCCC GTATAATTAA CGCGCCCGAT 240
 AGGAGTCGAA CCCATAACCT CTGTATCCGT AGTCAAACGC TCTATnCAAT TGAGCTACGG 300
 10 GCGCATATGT TTTTATTGAA AATGGTGCCG AGGACCGGAA TCGAACCGGT ACGGTGATCA 360
 CTCACCGCAG ATTTTAAGTC CTGTGCGTCT GChAGTCCG 400

15 (2) INFORMATION FOR SEQ ID NO: 3615:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 400 base pairs
 (B) TYPE: nucleic acid
 20 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3615:

25 TGGGCTCTCG CTTACTCAIT TAGCTCTACT AAACCTGTTG CGCTCTTTTC TCGTTTCGTC 60
 AGAITCAAAC GTTTTCACIT CGCCAAGCCA TTTTCTTTG TGTTTACTTT TTATTTTGAC 120
 30 GTTTTAGACA TAAAAAAGA GACCTCACGG TCTCAACTTG CCTGGCAACG TTCTACTCTA 180
 GCGGAACGTA AGTTGGCTAC CATCGTCGCT AAAGACCTTT CTTGACTTGT GACAAATCGCT 240
 TGCTCTTTTC CTCTCCTTCG GCTCTCGCTT ACTCAITTAG CTCTACTAAA CTCGTTGCGC 300
 35 TCTTTTCTCG TTTCGTCAGA TTCAAACGTT TTCACTTCGC CAAGCCATT TTCTTTGTGT 360
 TTACTTTTTA TTTTGACGTT TAGGCATAAA AAAAAGAGAC 400

40 (2) INFORMATION FOR SEQ ID NO: 3616:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 420 base pairs
 (B) TYPE: nucleic acid
 45 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3616:

50 TnGTGCTTT CGAACACTAG CGATTATTTT TTATGAATTC AAGCTTATTT AAAACTCTTT 60
 ATTCATCGG TTTTGCTTG KAAAATCTAT ATTTTACTTA CTTATCTAGT TTTCAATGTA 120
 55 CAATTTCTTT TTAGTCAAGC GCTCGCATAA GCAATATCAC TTTAACCAAA AAATATTTGA 180

AAGATGTGCC GAATATATCC TTAGAAAGGA GGNATCCAG CGCACCTTC CGATACGGCT 300
 ACCTTGTTAC GACTTCACCC CAATCATTTG TCCACCTTC GACGCTAGC TCCTAAAAGG 360
 5 TTACTCCACC GGCTTCGGGT GTTACAACT CTCGThGGT TGACGGGGCGG TGTGTACAAG 420

(2) INFORMATION FOR SEQ ID NO: 3617:

10 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 400 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

15

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3617:

CACTAGCGAT TATTTCTTAT GAATTCAGC TTATTTAAAA CTCCTTATTC ACTCGGTTTT 60
 20 GCTTGGTAAA ATCTATATTT TACTTACTTA TCTAGTTTT AATGTACAAT TTCTTTTTAG 120
 TCAAGCGCTC GCATAAGCAA TATCACTTTA ACCAAAAAAT ATTTGAATGT TAAATAAACA 180
 25 TTCAAAACTG AATACAATAT GTCACATTAT TCOGCATCTT CTGAAGAAGA TGTTCCGAAT 240
 ATATCTTAG AAAGGAGGTG ATCCAGCCGC ACCTTCCGAT ACGGCTACCT TGTACGACT 300
 TCAnCCCAAT CATTTGTCCC ACCTTCGACG GCTAGCTCCT AAAAGGTTAC TCCACCGGCT 360
 30 TCGGGTGTTA CAAACTCTCG TGGTGTGACG GCGGGTGTGT 400

(2) INFORMATION FOR SEQ ID NO: 3618:

35 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 400 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

40

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3618:

GATATACGCT ATGGCTGGAG CAGTGTGGCC AAATGGCGGA AGACAAACGT TTAATCGCAT 60
 45 ATACTTAGCG CAJAAATATG GTGTGGCTGT CGGTGCTGCA ATGGGCGGCT TTGTGCGAGA 120
 ATTTAGCTTT AACTATATCT TTTTAGCCAA TCTTATTATG TATGTTGTGT TTGCGCTTGT 180
 CCGGTTAAcN AATTTAATAT TGAAATTAAT GCGAAAGTTA AATATCCAAC TCATTTAGAT 240
 50 ATTACTGGTA AAAAGAATAA AGCAAGATTT ATTTCATTAG TACTAATTTG TGCAATGTTT 300
 GCAATTTGTT GGGTTGCATA TATTCAATGG GGAGTCTACA ATCGCTTCAT TTTACACAAT 360
 55 CTATTAATAT TTCAATGGGC ACAATATAGT GTTTTATGGG 400

- (1) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 400 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3619:

TCGCACGCCT	TGSCCTATCC	TACTGGGTCC	CCCCATCGAT	TAAAACGATT	ATAGGTGGTA	60
CAGGnAATAT	CAACCTGTTA	TCCATCGCCT	ACGCCTGTGG	GCCTCAGCTT	AGGACCCGAC	120
TAACCCAGAG	CGGACGAGCC	TTCCTCTGGA	AACCTTAGTC	AATCGGTGGA	CGGGATTCTC	180
ACCCGTCTTT	CGCTACTCAC	ACCGGCATTC	TCACCTTCTAA	CGGCTCCACA	TGTCCTTACG	240
ATCATGCTTC	AACGCCCTTA	GAACGCTCTC	CTACCATTTG	CCAAAGGAAA	TCCACAGCTT	300
CGGTAATATG	TTTAGCCCCG	GTACATTTTC	GGCGCAGTGT	CACTCGACTA	GTGAGCTATT	360
ACGCACCTCTT	TAAATGATGG	CTGCTTCTAA	GCCAAACATCC			400

(2) INFORMATION FOR SEQ ID NO: 3620:

- (1) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 400 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3620:

TTAAGTCTTC	GATCGATTAG	TATTCGTCAG	CTCCACATGT	CACCATGCTT	CCACCTCGAA	60
CCTATTAAAC	TCATCATCTT	TGAGGGATCT	TATAACCGAA	GTTGGGAAAT	CTCATCTTGA	120
GGGGGGCTTC	ATGCTTAGAT	GCTTTCAGCA	CTTATCCCGT	CCACACATAG	CTACCCAGCT	180
ATGCCGTTGG	CACGACAACT	GGTACACCAG	AGGTATGTCC	ATCCCGGTCC	TCTCGTACTA	240
AGGACAGCTC	CTCTCAAATT	TCCTACGCCC	ACGACGGATA	GGGACCGAAC	TGCTTCACGA	300
CGTTCTGAAC	CCAGCTCGCG	TACCGCTTTA	ATGGGCGAAC	AGCCCAACCC	TTGGGACCGA	360
CTACAGnCCC	AAGGATGCGA	TGAGCCGACA	TCGAGGTGCC			400

(2) INFORMATION FOR SEQ ID NO: 3621:

- (1) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 475 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3621:

CCACACCCGc AAATGTTgag CCATAGcAGG ATTcGgaACC TcTgCACCCCT CTGATTAAAA 60
 5 GTCAGcATGC TCTACCACT GaGCTAATGG CTCTTCCATG GTGCCGCGCA GAGGACTTGA 120
 ACCCCCAACC TACTGATTAC AAGTCAGTTG CTCTACCAAT TGAGCTAGGC CGGCAATATG 180
 10 TAAGAATAAA TGGTGGAGAA TGACGGGTTc GAACCGCCGA CCTCTGCTT GTAAGGCAGA 240
 TGCTCTCCCA GCTGAGCTAA TTCTCCGATT TAAAACTGCC TGGCAACGTT CTACTCTAGC 300
 GGAACGTAAg TTGACTACC ATCGACGCTA AGGAGCTTAA CTCTGTGTT CGGCATGGGA 360
 15 ACAGGTGTGA CCTCCTTGCT ATAGTACCA GACATATGGA ATGTAATTTA TACATTCAAA 420
 ACTAGATAGT AAGTAAAGT GATTTTGCTT CGCAAAACAT TTAITTTGAT TAAGT 475

(2) INFORMATION FOR SEQ ID NO: 3622:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 400 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3622:

TGGACGAAAC TTTATATCGA TCAATTTCTA TCGAGTTGGA CAATGCCGAA GCGTGACAAA 60
 30 AGTTTTTACC ATGCATGGTT GCATTTAGCG CAACATGACC ATAGTTTTAC TAAAGCACAG 120
 CGCnCAAGTG ATTAAGGCT TACCCAATGA TCCTGAAATG ACGATAGAGT CAGTATTAAC 180
 35 TCATTTTTCA ATAGATCAGG AAGACTACCA AGCTTATGTT GAAGGACATC TTTTGGCGTT 240
 ACCGGGTTGG GCAGTATGT TGTATTACCG TTCACAACAG CATCACTTTG AACAACTTT 300
 40 GTTAACGGAT TATTTGGCAA TTCGGTTAGT TGTCGAACAA TTGCTAGTTG GTGGATGAGT 360
 TTTAAGTCAG TCGCTAAAGA TTGTGGAAG TAAGATCCGG 400

(2) INFORMATION FOR SEQ ID NO: 3623:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 400 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3623:

TAGATGCTTT CasACTTATC CCGTCCACAC ATAGCTACCC AGCTATGCCG TTGGACGACA 60
 55

ATTTCTACG CCCACGACGG ATAGGGACCG AACTGTCTCA CGACGTTCTG AACCCAGCTC 180
 GCGTACCGCT TTAATGGGCG AACAGCCAAAC CCTTGGGACC GACTACAGCC CCAGGATGCG 240
 5 ATGACCAGACA TCGAGGTGCC AAACCTCCCC GTCGATGTGA ACTCTTGGGG GAGATAAGCC 300
 TGTATATCCC GGGGTAGCTT TTATCCGTTG AGCGATGGCC TTCCATCGCG GAACACCGGA 360
 TCACTAAGTC CGTCTTTTGA CCTTGCTCGA CTTTGTAGGn 400

(2) INFORMATION FOR SEQ ID NO: 3624:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 400 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3624:

GAGCTAGGCC GGCAATATGT AAGAATAAAT GGTGGAGAAT GACGGGTTTC AACCGCCGAC 60
 CCTCTGCTTG TAAGGCAGAT GCTCTCCAG CTGAGCTAAT TCTCCGATT AAAACTGCCT 120
 25 GGCAACGTTT TACTCTAGCG GAAnTAAGTn GnACTACCAT CGACGCTAAG GAGCTTAACT 180
 TCTGTGTTTC GCATGGGAAC AGGTGTGACC TCCTTGCTAT AGTCACCAGA CATATGAATG 240
 30 TAATTTTATC ATTCAAACT AGATAGTAAG TAAAGTGAT TTGCTTCGC AAACATTTAT 300
 TTTGATTAA GTCGATCG ATTAGTATTC GTCAGCTCCA CATGTCACCA TGCTTCCACC 360
 TCGAACCTAT TAACCTCATC ATCTTTGAGG GGATCTTATA 400

(2) INFORMATION FOR SEQ ID NO: 3625:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 400 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3625:

TTAAGAACG CTAATACTG ATCGTAACCA CTATATATAT TGTTGTGACC TCTAACAGCA 60
 TAATGTCTAA ATGTTTGTGG GATATATTGA AGCAATCCTT TTGCTGGATT GCCCTGTAAA 120
 50 ACGTTGATGT CTC TAAGCGA ACTAGATTGA GTTATACCTG CATTTCCTCC TGATTGCTGT 180
 TGAATCAAGC TAATGATATT TCCTACGTCA GCCGAAGTAA CATTAAACACC CATTGTTTTT 240
 GCTGCACGAC GTATATCGCC TGCCCAAGCA GATGCAGCCT TATTAACACC TGAACCACTT 300

CCTGATGCG ACCCTTGCAT CanTTGGGAA ATGTAnGTGT

400

(2) INFORMATION FOR SEQ ID NO: 3626:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 461 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3626:

GATTGTGGTT CCGACATTCG AGGGTTCGAT CCCCTTCAGC CGCCCTTATT ATTAATGGGC 60
 TATAGCCAAG CGGTAAAGCA ACGGACTTTG ACTCCGTCAC TCGTTGGTTC GAATCCAGCT 120
 AGCCCAAGTTA TTGGCGGCAT AGCAAGTGGT AAGGCAGAGG TCTGCAAAAC CTTTATCACC 180
 GGTTCAAATC CGGTTCGCCG CTCCAGGTIT ATGCGGGAGT AGTTCAACTT TTAGAACACG 240
 TTCTTCCCGG GAAGAGGTAT AGGTGCAAAAT CCTATCTTCC GCTCCATAAT TTAATAATAA 300
 TGCGGGAGTA TTCAACTCT TAGAATACAT TCCTTCTCGG AATgAGGTAT AGGTGTAAAT 360
 CCTATCTTCC GCTCCATAAT TTAATATTTG cGGGAGTAGT TCAACTTTTA GAAACAGCTC 420
 CTTCCCGGAA CCGAGGTATA GGTGTAAATC CTATCTTCCG C 461

(2) INFORMATION FOR SEQ ID NO: 3627:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 400 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3627:

TGCGGTCTCA ATGCGGGTCA TCGCATCCAT TTTTGGCCTG GCAACGTTCT ACTCTAGCGG 60
 AACGTAAGTT GGCTnAnATC GACGCTAAGA ACCTTTCTTG ACTTGTGACA ATCGCTTGCT 120
 TCTTCTCTCT TCTTCGGCTC TCGCTTACTC ATTTAGCTCT ACTAACTCGT TTGCGCTCTT 180
 TTCTCGTTTC GTCAGATTCA AACGTTTTCA CTTCGCCAAG CCATTTTTCT TTGTTGTTGC 240
 TTTTATTTTT GACGTTTTAG ACATAAAAAA AAGAGACCTT GCGGTCTCAA TCGCGCTCAT 300
 GCATCCATT TTTTGCCTGG CAACGTCTCA CTCTAGCGGA ACGTAAAGTC GACTACCATC 360
 GACGCTAAGG GAGCTTAACT TCTGTGTnCG GGCATGGGGG 400

(2) INFORMATION FOR SEQ ID NO: 3628:

- (A) LENGTH: 400 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

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(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3628:

10 ATGCTTTCAG CACTTATCCC GTCCACACAT AGCTACCCAC CTATGCCGTT GGCACGACAA 60
 CTGGGTACAC CAGAGGTATG TCCATCCCGG TCCTCTCGTA CTAAGGACAG CTCCTCTCAA 120
 ATTTCTCTAG ACCCAGGACG GATAGGGACC GAACTGTCTC ACGACGTTCT GAACCCAGCT 180
 15 CGCGTACCGC TTTAATGGGC GAACAGCCCA ACCCTTGGGA CCGACTACAG CCCCAGGATG 240
 CGATGAGCCG ACATCGAGGT GCCAACCCTC CCGTCGATG TGAACCTCTG GGGGAGATAA 300
 GCCTGTATAT CCGGGGTAG CTTTATCCG nTGACGATG GGCCITCCAT GCGGhACCAAC 360
 20 CGSnTTACTA AGTCGCTCTT TCGAnCCTGC TCGACTTGTA 400

(2) INFORMATION FOR SEQ ID NO: 3629:

- 25 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 400 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

30

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3629:

TTTATAAATA TCCAGTCTG AACGCGATTG CCATAACGGA TCAATGGCAG GATTGAAAGG 60
 35 ATGTACATAT GGATGCATAT CCGTTGATGA TAAATCATGT TTTTCATACC AAGTCGCTGC 120
 CGGCAAAACA ATGTCAGAAAT ATAACGGTGT TGCCGTCATT CTGAAGTCTA AAGAGACCAC 180
 40 TAAATCTAAC TTACCTGTGT TTTCTTCACG CCACGTAATT TCTTCGGCT TTTTCATCTC 240
 ATTTGGTGTA GCTAATAACC CTGATTITGT GCCAAGTAAA TGCTTCATAA AGTATTCTTG 300
 ACCTTTGTGA GAACCTGAAA TTAAGTTTGA ACGCCATATA AATAATGATT TTGGATGATT 360
 45 CTnTTTCAA TCAGGATCTT CTATTGCAAA TGGGGTTTGT 400

(2) INFORMATION FOR SEQ ID NO: 3630:

- 50 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 589 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

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TTTAAGTTGT nGATTTAAAA TATTAATAAAA GTGTAAATTT GACTATTGAn ATTCKrACAa 60
 ATACATATTA AAATAATATT TGTGAATTA ATTGAGTTAG GAAATTTATT TTTTAGAAAT 120
 5 AAAATAATTA AAAATAATTC TTGACTTACA AAAACTTAG AGTTATAATT AAATCTTGTA 180
 AGTGACAAAC GAACATTGAA AACTGAATGA CAATATGTCA ACGTTAATTC CAAAAACGTA 240
 10 ACTATAAGTT ACAACATTA TTTAGTATT ATGAGCTAAT CAAACATCAT AATTTTATG 300
 GAGAGTTTGA TCCTGGCTCA GGATGAACGC TGGCGGCGTG CCTAATACAT GCAAGTCGAG 360
 CGAACGGACG AGAAGCTTGC TTCTCTGATG TTAGCGGCGG ACGGGTGAGT AACACGTGGA 420
 15 TAACTACCT ATAAGACTGG GATAACTTCG GGAAACCGGA GCTAATACCG GATrATATTT 480
 TGAACCGCAT GGTCAAAGG TGAAAGACGG TCITGCTGTC ACTTATAGAT GGATCCGCGC 540
 TGCATTAGCT AGTTGGTAAG GTAACGGCTT ACCAAGGCAA CGATGCATA 589

(2) INFORMATION FOR SEQ ID NO: 3631:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 400 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3631:

CCAACTGAGC TAATGGCTCT TCCATGGTGC CGGCCAGAGG ACTTGAACCC CCAACCTACT 60
 GATTACAAGT CAGTTGCTCT ACCAATTGAG CTAGGCCGGC AATATGTAAG AATAAATGGT 120
 35 GGAGAATGAC GGGTTCGAAC CGCCGACCCT CTGCTTGTA GGCAGATGCT CTCCCAGCTG 180
 AGCTAATTCT CGATTTAAA ACTGCCCTGGC AACGTTCTAC TCTAGCGGAA CGTAAGTTCT 240
 ACTACCATGC ACGCTAAGGA GCTTAACITC TGTGTCGGC ATGGGAACAG GTGTGACCTC 300
 40 CTGTCTATAG TCACCAGACA TATGAATGTA ATTTATACAT TCAAACTAG ATAGTAAGTA 360
 AAAGTGATTT GCTTCGCAA ACATTTATTT TGATTAAGTC 400

(2) INFORMATION FOR SEQ ID NO: 3632:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 400 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3632:

TTCCACCATT TTTATAAGTC AAACGTAAAC ATGAAGTTAC GTTCTTTTAT AAAAAGATT 120
 AAACGGTGA TTAATCTGT GAGTGTTCIT TCGAACACTA GCGATTATTT CTIATGAATT 180
 5 CAAGCTTATT TAAAACTCTT TATTCACCTG GTTTTGCTTG GTAAATCTA TATnTTACTT 240
 ACTTATCTAG TTTTCAATGT ACAAATAATG GTGGAGACTA GCGGGATCGA ACCGCTGACC 300
 10 TCCTGGCGTG CAAGCAGGC GCTCTCCAG CTGAGCTAAa GCCCCCAaAT AGGTATTAa 360
 TTAATGGGGG GGCCTAAGTG GACTCGAACC ACCGACCTCA 400

(2) INFORMATION FOR SEQ ID NO: 3633:

15 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 400 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear
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(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3633:

25 ATATGTCAAC GITAATCCA AAAAACGTAA CTATAAGTTA CAAACATTAT TTAGTATTTA 60
 TGAGCTAATC AAACATCATA ATTTTATGAG AGAGTTTGAT CCTGGCTCAG GATGAACGCT 120
 GCGGGCGTGC CTAATACATG CAAGTCGAGC GAACGGACGA GAAGCTTGCT TCTCTGATGT 180
 30 TAGCGGCGGA CGGGTGAGTA ACAGTGGAT AACCTACCTA TAAGACTGGG ATAACCTCGG 240
 GAAACCGGAG CTAATACCGG ATAATATTTT GAACCGCATG GTTCAAAAGT GAAAGACGGT 300
 CTTGCTGTCA CTTATAGATG GATCCGCGCT GCATTAGCTA GTTGTAAGG TAACGGCTTA 360
 35 CCAAGGCGAC GATGCATAGC CGACCTGAGA nGGTGATCGG 400

(2) INFORMATION FOR SEQ ID NO: 3634:

40 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 400 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3634:

45 TGAGCTAGGC CGGCAATATG TAAGAATAAA TGGTGGAGAA TGACGGGTTG GAACGCCGA 60
 50 CCTCTGCTT GTAAGGCAGA TGCTCTCCA GCTGAGCTAA TTCTCOGATT TAAAACTGCC 120
 TGGCAACGTT CTACTCTAGC GGAACGTAAG TTCGACTACT ATCGACGCTA AGGAGCTTAA 180
 55 CTTCTGTGTT CGGCATGGGA ACAGGTGTGA CCTCCTTGCT ATAGTCACCA GACATATGAA 240

TATTTTGATT AAGTCTTGA TCGATTAGTA TTCGTCAGCT CCACATGTCA CCATGCTTCC 360
 ACCTCGAACC TATTAACCTC ATCATCTTIG AGGGATCTTA 400

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(2) INFORMATION FOR SEQ ID NO: 3635:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 400 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

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(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3635:

TTGTGACAAT CGCTTGCTTC TTTCCTCTCC TTGGGCTCTC GCTTACTCAT TTAGCTCTAC 60
 TAAACTCGTT GCGCTCTTTT CTCGTTTCGT CAGATTCAAA CGTTTTCACT TCGCCAAGCC 120
 ATTTTTCTTT GTGTTTACTT TTTATTTTGA CGTTTITAGAC ATAAAAAAGAA GAGACCTTGC 180
 GGTCTCAAAT GCGGCTCATC GCATCCATTT TTGCTCTGGC AACGTTCTAC TCTAGCGGAA 240
 CGTAAGTTGG GCTACCATCG ACGCTAAGAA CCTTTCCTGA CTTGTGACAA TCGCTTGCTT 300
 CTTTCTCTTT CTTCGGCTCT CGCTTACTCA TTTAGCTCTA CTAAACTCGT TCGCTCTTTT 360
 TCTCGTTTCG TCAGATTCAA ACGTTTTCAC TTCGCCAAGC 400

30

(2) INFORMATION FOR SEQ ID NO: 3636:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 400 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

35

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3636:

TACTTATCTA GTTTTCAATG TACAATTTCT TThTAGTCAA GCGCTCGCAT ACTGATTTTC 60
 AAAAAATCAA ATGCTCATTT ACAAAGTAA ACTCCGCTTT ATTTTCTTAA ATGCTTGTTC 120
 TAACAACCGC TTTCTTTAAA AGAATAGAT TGTCAAGCGC TCGCATAAGC AATATCACTT 180
 TAACCAAAAA ATATTGTAAT GTTAAATAAA CATTCAAAAC TGAATACAAT ATGTCAAGTT 240
 ATTCGCGATC TTCTGAAGAA GATGTTCCGA ATATATCCTT AGAAAGGAGG TGATCCAGCC 300
 GCACCTTnCG ATACGGCTAC CTTGTTACGA CTTCAACCCCA nTCATTTGTn CCACCTTCGA 360
 CGGCTAGCTC CTAAAGGTT ACTCCACCGG CTTGGGGTGT 400

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(2) INFORMATION FOR SEQ ID NO: 3637:

(A) LENGTH: 400 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

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(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3637:

10	AGCGCTCGCA TAAGCAATAT CACTTTAACC AAAAAATATT TGAATGITA AATAACATT	60
	CAAACTGnA ATACAATATG TCACATTATT CCGCATCTTC TGAAGAAGAT GTTCCGAATA	120
	TATCCTTAGA AAGGAGGTGA TCCAGCCGCA CTTCCGATA CGGCTACCTT GTTACGACTT	180
15	CACCCCAATC ATTTGTCCTA CTTTCGACGG CTAGCTCCTA AAAGGTTACT CCACCGGCTT	240
	CGGGTGTAC AAACCTCTGT GGTGTGACGG GCGGTGTGTA CAAGACCCGG GAACGTATTC	300
	ACCGTAGCAT GCTGATCTAC GATTACTAGC GATTCCAGCT TCATGTATGC GAGTTGCAGA	360
20	CTACAATCCG AACTGAGAAC CACTTATGGG ATTGCCTnAC	400

(2) INFORMATION FOR SEQ ID NO: 3638:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 400 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

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(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3638:

	TTCTCCGATT TAAAACTGCC TGGCAACGTT CTACTCTAGC GGAAGTAAGT CGAaCTACCA	60
35	TCGACGCTAA GGAGCTTAAC TTCTGTGTC GGCATGGGAA CAGGTGTGAC CTCCTTGCTA	120
	TAGTCACCAG ACATATGAAT GTAATTATATA CATTCAAAAC TAGATAGTAA GTAAAAGTGA	180
	TTTTGCTTCG CAAACATTT ATTTTGATTA AGTCTTCGAT CGATTAGTAT TCGTCAGCTC	240
40	CACATGTCAC CATGCTTCCA CCTCGAACCT ATTAACCTCA TCATCTTTGA GGGATCTTAT	300
	AACCGAAGTT GGGGAAATCT CATCTTGAGG GGGGCTTCAT GCTTAGATGC TTTCAGCACT	360
45	TATCCCGTCC ACACATAGCT ACCCAGCTAT GCCGTGGCA	400

(2) INFORMATION FOR SEQ ID NO: 3639:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 551 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

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ATGTCTCTAA CGCCTTTAAT AGTATTGAAC ACAATTGGGA AAAAAGCAGC GATAAAAAATA 60
 ATGCAATATCG CTGGCAAACT ACCAATACCA AACCATAGAA CAACAAATGG TGCCCATGCT 120
 5 ATCGGAGATA TCGGCTTAAT CAATTGAAAT AGCGGTTCGA TAGCGTGTGA TAGCCAACGA 180
 TTCCTTCCAA GCAAGAGGCC CAATGGAATA GCAACCAACA ATGCGACAAC AAAGCCCCGCT 240
 ACAAACTCC ATAACTAAT TGCTAAATGT TGGAAAAATT CTCCAGTAAC AATGAAAGAC 300
 10 CATATACTTT TTCCTACAAG AGCAGGACCC GGTAAACAATA CAGGTGTGTA ATGCCCAATA 360
 ATAATGACCA TTTCCCAaAT GCCTAAGAAA ATAATAATG TGATAATAGG TAATATAAAT 420
 TTGTTATTTG TGGGACGTGT CATGAACGCG ATGCCTCCTT ATACAATGAC GGTTCACAA 480
 15 AGTCATCCAT ATGCAGGTGG ATTAACAAA TGATGTTGTT TTACCAAGTC GTAATTTCTT 540
 GATAGCCGGA T 551

20 (2) INFORMATION FOR SEQ ID NO: 3640:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 400 base pairs
 (B) TYPE: nucleic acid
 25 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3640:

30 CACTAAACTA AATTAAAGAA GTGCCTTATG TATAAAAAAT ATAACCTGAT CCAACTTACA 60
 CTACCAATAG AAACCTTCTGT TAGAATTCTT CAAATTGATA TTTCGCGATA TGTTAATGAA 120
 35 ATTTGTGAAA CGATACCTGA TAGCGAATTC GATAAATCA GACATCATCG TGGCGCAACA 180
 TCCTATCATC CAAAAATGAT GTTAAAAATC ACCTTATATG CATATACTCA ATCTGTATTT 240
 TCTGGTCGTA GAATAGAGAA ATTACTTCAT GACAGTATTC GAATGATGTG GTTAGCTCAA 300
 40 AATCAACAC CTTCTTATAA AACTATTAAAT CGTATTAGAG TGAATCCTAA TACTGATGCG 360
 TTAATTGAAT CTTATTATAT CCAAGTTTCAT AGTCAATGTT 400

(2) INFORMATION FOR SEQ ID NO: 3641:

- 45 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 398 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 50 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3641:

55

GATTGTCTCTT TGGCAATGGT AGGAGAGCGT TCTAAGGGCG TTGAAGCATG ATCGTAAGGA 120
 CATGTGGAGC GCTTAGAAGT GAGAATGCCG GTGTAGTAGT CGAAAGACGG GTGAGAATCC 180
 5 CGTCCACCGA TTGACTAAGG TTTCCAGAGG AAGGCTCGTC CGCTCTGGGT TAGTCGGGTC 240
 CTAAGCTGAG GCCGACAGnG TAGGCGATGG ATAACAGGTT GATATTCTTG TACCACCTAT 300
 AATCGTTTTA ATCGATGGGG GGCGCATAG GATAGGCGAA CGTTCGATT GGATTGCAGC 360
 10 TCTAAGCAGT AAGGCTGGAG TATTAGGCAA ATCCGGTA 398

(2) INFORMATION FOR SEQ ID NO: 3642:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 439 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

20

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3642:

TAATGTCTAC ACTTGGCTTG CGATCATTCA TTTAAAGCC AGACTTTTTA TAATCTTGTA 60
 25 CAAATGCTTG CGCTACATCC TTGTGTTGAT CAAGCAATTC CCCTCTCAGT ACTAGCACAC 120
 AGCAATACGC ATCAGGtATA ACGTCATCAC CATGTTTCAA AGTCTTACCT TTGCCTAACT 180
 TTTCAACCCAG TGCACCGAAT GGTTGGGCTA CAGAATACCC TGTaATTCTG TGTTCACATCA 240
 30 ATGCGGCTGG CAITTTCTGCT GGCACATTT CATGATAGCT AAAATGCCCC GGTTTAATCT 300
 TTAATTGTTT ACGTAATTCC TCAAGTAAAA GATAATGTGt TGAATAACgA TGTGGtATAC 360
 35 CAAAATGGkA ATCATGCGCA TTAAtATTAA ATTCaTTTAA GTGCATACCT TTTTGTCCCA 420
 TAATGACATT GCCTTCATG 439

(2) INFORMATION FOR SEQ ID NO: 3643:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 400 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

45

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3643:

ATTTCCTATG AATTCAAGCT TAITTAAAC TCITTATTCA CTCGGTTTTG CTGGGTAAAA 60
 50 TCTATATTTT ACTTACTTAT CTAGTTTICA ATGTACAAAT AATGTTGGAG ACTAGCGGGA 120
 TCGAACCGTG ACCTCCTGCG TGCAAGCAG GCGCTCTCCC AGCTAGCTA AGCCCCCAAA 180

55

GGGTGCGCTC TAACGAGCTG AGCTATAGGC CCATTAAATTT GAATGAACAA ACATTCAAAA 300
 CTGAATACAA TATGTCACGT TATTCGCGCAT CTTCTGAAGA AGATGTTCCG AATATATCCT 360
 5 TAGAAAGGAG GTGATCCAGC CGCACCTTnC GATACGGTTA 400

(2) INFORMATION FOR SEQ ID NO: 3644:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 399 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3644:

GCGAAACTGT ACGGAGCAAC GCCGCGTGAG TGATGAAGGT CTCGGATCG TAAAACTCTG 60
 TTATTAGGGA AGAACATATG TGTAAAGTAAC TGTGCACATC TTGACGGTAC CTAATCAGAA 120
 AGCCACGGCT AACACGTGCC AGCAGCCGCG GTAATACGTA GGTGGCAAGC GTTATCCGGA 180
 ATTATTGGCG GTAAAGCGCG CGTAGGnGTT TTTTAAGTCT GATGTGAAAG CCCACGnTC 240
 25 AACCGTGAGG GGTCAITGGA AACTGGA AAA CTTGAGTGCA GAAGAGGAAA GTGGAATTCC 300
 ATGTTGATCG GTGAAATGCG CAGAGATATG GAGGAACACC AGTGGCGAAG GCGACTTTCT 360
 GGTCTGTAAC TGACGCTGAT GTGCGAAACG TGGGGATCA 399

(2) INFORMATION FOR SEQ ID NO: 3645:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 400 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3645:

TATTATACCTT TACATTCTC GTTTCGTGAG ATTCAAAGT TTTCACCTCG CCAAGCCATC 60
 TTTCTTTGTG TTGCTTTTA TTTTGAGTIT TAGACATAA AAAAAGAGAC CTTGCGGTCT 120
 45 CAATGCGGCT CATGCGATCC ACTTTTTGCC TGGCAACGTT CTACTCTAGC GGAAGCTAAG 180
 TnCGACTACC ATCGACGCTA AGGAGCTTAA CTTCTGTGT CGGCATGGGA ACAGGTGTGA 240
 CCTCCTTGCT ATAGTCACCA GACATATGAA TGTAAATnAT ACATTCAAAA CTAGATAGTA 300
 50 AGTAAAGAGT GATTTTGCTT CGCAAAACAT TTATTTTGGG TTAAGTCTTC GATCGGATTA 360
 GTATTTCGTA GCTCCACATG TCACCATGGC TTCCACCTCG 400

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 758 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3646:

AGATAAGTAA GTAAAAATA GATTTTACCA AGCAAAACCG AGTGAATAAA GAGTTTTAAA	60
TAAGCTTGAA TTCATAATA ATCGCTAGTG TTCGAAAGAC ACGAnCAAGA TTAATAACGC	120
GTTTAAATCT TTTTATAAAA GAACGTAAct TCATGTTAAC GTTTGACTTA TAAAAATGGT	180
GGAAACATAG ATTAAGTTAT TAAGGGCGCA CGGTGGATGC CTTGGCACTA GAAGCCrATG	240
AAGGACGTTA CTAACGACGA TATGCTTTGG GGAGCTGTAA GTAAGCTTTG ATCCAGAGAT	300
TTCCGAATGG GGAAACCCAG CATGAGTTAT GTCATGTTAT CGATATGTGA ATACATAGCA	360
TATCAGAAGG CACACCCGGA GAACTGAAAC ATCTTAGTAC CCGGAGAAGA GAAAGAAAAAT	420
TCGATTCCCT TAGTAGCGGC GAGCAnAACG GGAAGAGCCC AAACCAACAA GCTTGCTtGg	480
GGGtnTGTaG GACACTCTAT ACGGATTACA AAGGACGACA TTAGACGAAT CATCTGGAaA	540
GATGAATCAA AGAAGGTAAT AATCCTGTAG TCGAAATGTI TGCTCTCTTT GAGTGGATCC	600
TGAGTACGAC GGAGCAGCTG AAATTCGCTC GGAATCTGGG GAGGACCATC TCCTAAGGCT	660
AAATACTCTC TAGTGACCGA TAGTGGAACC aGTaCCGTGA GGGAAAGGTg AAAAGCACCC	720
gGAAGGnaGT TGAATaGAA ctGGAAACCG TGTGCTTA	758

(2) INFORMATION FOR SEQ ID NO: 3647:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 400 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3647:

ACAAACTCCG AATGCCAATT AATTAACTT GGGAGTCAGA ACATGGGTGA TAAGTCCGT	60
GTTCGAAAGG GAAACAGCCC AGACCACCAG CTAAGGTCCC AAAATATATG TTAAGTGGAA	120
AAGGATGTGG CGTTGCCCGA ACAACTAGGA TGTTGGCTTA GAAGCAGCCA TCATTTAAAG	180
AGTGCgTAAT AGCTCACTAG TCGAGTGACA CTGCGCCGAA AATGTACCGG GGCTAAACAT	240
ATTACCGAAG CTGTGGAATT TCCTTTGGhA TGGGTAAAGGA GAGCGTTCTA AGGCGGTTGA	300

AAGACGGGTG AGAATCCCGT CCACCGATTG ACTAAAGGTT

400

(2) INFORMATION FOR SEQ ID NO: 3648:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 521 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3648:

GTTCATTGGAA ACTGGAAAAC TTGAGTGCAG AAGAGGAAAG TGGAAATCCA TGTGTAGCGG 60
 TGAATATGCGC AGAGATATGG AGGAACACCA GTGgncGAAG GCGACTTTCT GGTCTGTAAC 120
 TGACGTGAT GTGCGAAAC TGGGGATCAA ACAGGATTAG ATACCTTGGT AGTCCACGCC 180
 GTAAACGATG AGTGCTAAGT GTTAGGGGT TTCCGCCCCCT TAGTGCTGCA GCTAACGCAT 240
 TAAGCATCC GCTGGGGAG TACGACCGCA AnGTTGAAAC TCAAAGGAAT TGACGGGGAC 300
 CCGCACAAGC GgTGGaGCAT GTGGTTAAT TCGAAGCAAC GCGAAGAACC TTACCAAATC 360
 TTGACATCCT TTGACAACTC TAGAGATAGA GcTTCCCT TCGGGGGACA AAGTGACAAG 420
 TGGTGCAATG TGTCGTCaAC TCCTGTCGTT GAGATGTTGG GGTAAhTCCC CGCAAnGAGC 480
 GCACCCTTAA GCCTTAGTTT nCATCAITAA GTTGGGCACT C 521

(2) INFORMATION FOR SEQ ID NO: 3649:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 400 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3649:

CCAAAGTTCA TCTTTTACGA ATGAGAAATA GGTGTTGCAT ATTCAATGGT CTCATCTTGT 60
 TTATAAAAGC CACCAICTAA ATCACTAATC CATTGTGGTA AGTCTCCAAG TTCGCTTCC 120
 ATACGTGTTT TAACACGTC GTATCCCAIT GCATCCCAT ATTGAATGG ACCAAGTTTC 180
 CAGTTGAACC CCCAGACAAG CGCAGGTCT ATGTCTCGGA AATCATCGGT AGCTTTAGGT 240
 ACATTGATAG CAGAGTAATA GAAATTATTA CGTAATGTCT CCCATAAAAA TAGTCCCGCT 300
 TCGTCTTgCg CATTGAATAT GGTATCAaGk TTATGCACTA aGTCTTTaIT AAATTCATT 360
 AAAATTGGTA ATTGTGGTGT CGATACAGGT ACATAATCTT 400

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 400 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3650:

GCGATAATAA AAAATAATGG CGGAGGAAGA GGGATTGAA CCCCCGCGGn CCGTTAAGGC	60
CCTGTGCGTT TTCAAGACCG ATCCCTTCAG CCGGACTTGG GTATTCTCC ATTATTATAG	120
GTAAATCGCT ATTAATTATA AAATTAATG GCGGTCTGA CGGAATCGA ACCCGCGATC	180
TCCTGCGTGA CAGGCAGCGG TGTTAACCG TACACTACGA GACCATTAGT AAAACGGAGG	240
AAGAGGGATT CGAACCCCCG CGAGCCGTTA AGCCCCGTGC GGTTTTCAAG ACGATCCCT	300
TCAGCGGAG TTGGGTATTC CTCAAAATT ATATGGACCT TGCAGGACTC GAACCTGCGA	360
CCGAACGGTT ATGGAGCGT TAGCTCTAAn CAACCTGAGC	400

(2) INFORMATION FOR SEQ ID NO: 3651:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 400 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3651:

TGGCGCTGTG CTTTAGTAA ACTATGGTCA TGTGCGCTA AATGCAACCA TGCATGGTAA	60
AAACTTTGCT CACGCTTCGG CATTGTCCAA CTCGATAGAA ATTGAICGAT ATAAAGTTTC	120
GTCCATTAA TCATTGACG ATTCACCTGT TCGCTAAGTG GCTCACCTG TTCATCTATT	180
ATTGCATCAC TCATCGGAG TACATCATAG TGATGATATG ATTCAGCCAT ATCAGTTTTT	240
GATTTTTCTA ATAGTAGATC AGCAACAACA TCAACATTTG AATGATTCAT ATATGATGGC	300
AGGTACGCTC TTTAATGTTT TAATGTTATC AATATAAGA TGATGTAGTG TTGCGGGATA	360
TGTAGTGANG TTCAAGTAAC ATATCAGTAA CAAGTTGATT	400

(2) INFORMATION FOR SEQ ID NO: 3652:

- (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 400 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3652:

CATTGTCCAA AGGACAATCC ACAGCTTCGG TAATATGTTT AGCCCCGGTA CATTTTCGGC 60
 5 GCAGTGTAC TCGACTAGTG AGCTATTACG CACTCTTTAA ATGATGGCTG CTTCTAAGCC 120
 AACATCCTAG TTGTCTGGGC AACGCCACAT CCTTTTCCAC TTAACATATA TTTTGGGACC 180
 TTAGTGGTG GTCTGGGCTG TTTCCCTTTC GAACACGGAC CTTATCACCC ATGTTCTGAC 240
 10 TCCCAAGTTA AATTAATTGG CATTCCGGAGT TTGCTGAAT TCGGTAACCC GAGAGGGGCC 300
 CCTCGTCCAA ACAGTGTCTT ACCTCCAATA ATCATCACTT GAGGGCTAGC CCTAAAGCTA 360
 ATTTCCGAGA GAACGAGCTA TCTCCAGGTT CGATGGAATT 400

(2) INFORMATION FOR SEQ ID NO: 3653:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 400 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3653:

GGTTCGGTCC TCCATTTCAGT GTTACCTGAA CTTCAACCTG ACCAAGGGTA GATCACCTGG 60
 TTTCGGGTCT ACGACCAAAAT ACTAAACGCC CTATTCAGAC TCGCTTTCGC TACGGCTCCA 120
 30 CATTTACTGC TTAACCTTGC ATCAAATCGT AACTCGnCGG TTCATTCTAC AAAAGGCACG 180
 CCATCACCCA TTAACGGGCT CTGACTACTT GTAAGCACAC GGTTCAGGT TCTATTTCAC 240
 TCCCCTTCGG GGGTGCTTTT CACCTTTCCC TCACGGTACT GGTTCACAT CCGTCACTAG 300
 35 AGAGTATTTA GCCTTAGGAG ATGGTCTCTC CAGATTCCGA CGGAATTTC ACGTCTCCGT 360
 CGTACTCAAG nATCCACTCA AGAGAGACAA CATTTTCGAC 400

(2) INFORMATION FOR SEQ ID NO: 3654:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 400 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3654:

AAAGGCTCTA AATATAATTT TACAACTAAT AAATAGTGGC GGTGGAGGGG ATCGAACCCC 60
 CGACCTCAGC GGTATGAACC GTACGCTCTA GCCAGCTGAG CTACACGCC TTATATAGTT 120

GCGCTCTCCC AGCTGAGCTA AGCCCCATA ATAATTACAG TATATCGGGA AGACAGGATT 240
 CGAACCTGCG ACCCTTGGT CCCAAACCAA GTGCTCTACC AAGCTGAGCT ACTTCCCGTA 300
 5 TAATTAACGC GCCCGATAGG AGTCGAACCC ATAACCTCTT GATCCGTAGT CAAACGhTCT 360
 ATCCAATTGA GCTACGGGCG CATATGTTTT TATTGAAAAT 400

(2) INFORMATION FOR SEQ ID NO: 3655:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 400 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3655:

20 TATTGAAGCC TGAGTCAACA CGTACGCAA TCGATCAAT CATCGATGAA GCGAAACATA 60
 CAATTTTAAA TCTGTATGTG TGAATCCAAC ACATGTTAAA TATGCAGCAG AGCnnTAGC 120
 TGATTCAGAG GTGCTCGTTT GTACGGTAAT AGGATTCCCA TTAGGTGCGT CGACAACCTGC 180
 25 AACGAAAGCA TTTGAAACAG AAGATGCAAT TCAAAATGGT GCAGATGAAA TTGACATGGT 240
 CATCAACATC GCGCATTAA AAGATGGACG TTTTGATGAT GTACAACAAG ACATTGAAGC 300
 AGTGGTTAAA GCTGCGAAAG GTCACACAGT AAAAGTGGAT TATTGAGACG GTATTGTTGG 360
 30 GACCATGACG AAATTGTAAA AGCGAGTGGG ATTAACCAA 400

(2) INFORMATION FOR SEQ ID NO: 3656:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 530 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3656:

GATGAGTCGC TGnCTGATCT GAACGCTGTC TGAGnCGAA CGCTACTGAA CTGAGTCGCT 60
 45 GTCTGAGTCT GAATCGTAT CTGAATCTGA GTCGCTATCT GAGTCTGAGT CGCTGTCTGA 120
 GTCTGAGTCG CTGCTGAGT CTGAATCGCT ATCTGAATCT GAGTCGCTGT CTGAGTCTGA 180
 GTCGCTATCT GAGTCTGAGT CGCTGTCTGA ATCTGAGTCG CTGTCTGAAT CTGAATCGCT 240
 50 GTCTGAGTCT GAATCGTAT CTGAGTCTGA ATCGCTATCT GAGTCTGAAT CACTGTCTGA 300
 GTCCGAGTCA CTGTCTGAAT CTGACTCACT ATCTGATTCT GAGTCGCTAT CTGATTCTGA 360

ATCTGAACCT GAGTCGCTGT CTGAGCCTGA AGTCACTGGT CTGAATCCGA ATCCGGATCC 480
GGGTCTGGGG CTGGGTCTCC GGTCTCTGGT CTGGGACTTG GGTCTCTGGGA 530

(2) INFORMATION FOR SEQ ID NO: 3657:

- (i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 400 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3657:

GTTTAACTA CGCAAGACAT CGAAGAAGCT GACGGTGTC TAAATTCGAGC TGATAAACAA 60
GTTGATCTGT CCCGATTTGT TGGTAAACGG TTGATTAATG AAAATGTTC CGAAGGGATT 120
CATAATCCGA GAGGTCTAAT TCAACGTATC ATTAATCAAG ATGCGCCTAT TTATCAATCT 180
GAAACAATTT ATCATTCGAA AGATCGCGGT AAGTCTAAAA ATGGTATTCA AATGGTGTAT 240
CAACATTTAA TGAACGGTGT ATCGTTTATG GTTCCTTTTA TCGTAGTTGG TGGACTCCTT 300
ATCGCCATCG CGCTGGACTC TAGGCGGTGA ACGACATCAA AAGGATTAGT CATCCCAGAT 360
GGATTCATTT TGGGAAATCC ATTGGAAGAA ATTGGGTAGT 400

(2) INFORMATION FOR SEQ ID NO: 3658:

- (i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 668 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3658:

GAAGAAGTTT ATGAAACGGT TATGAATAAG CCATACACTA GATATCCAGT GTACGAGGGA 60
GATATTGATA ACATTATTGG GGTGTTTCAT TCTAAATATC TGTGGCTTG GAGTAATAAA 120
AAAGAAAATC AAATTACAAA CTATTCAGCT AAGCCATTAT TTGTGAATGA ACACAATAAA 180
GCTGAATGGG TATTACGTAA GATGACTATT TCTAGAAAAC ATTTAGCAAT TGTGTTGGAC 240
GAATTTGGTG GTACTGAAGC GATAGTGTC CATGAAGACT TAATTGAAGA ATTATTAGGT 300
ATGGAATTGG AAGATGAGAT GGAATAAAAG GAAAAAGAAA AACTTTCTCA ACAGCAAAAT 360
CmATTTCAAC AACGGAAAAA TCGCmACGTA TCTATATAAG GmCGCAACAG CTATGTGGTA 420
ATAAGAATCG ACTTACTCAA ATGTTAAGTA TTGAATATCC AATTATACAA GCAGGTATGG 480

TAGGCGCGGT TACTTTAATA CGCAGCAATT GGAAGATGAA ATAGATTATG GTACGCCAAT 600
 TAACGTCAAA TTCTTTTGGC GTAAATGTCT TTGGTACCAA GTCAACAATC ATATACCAGT 660
 5 AGTCAAAT 668

(2) INFORMATION FOR SEQ ID NO: 3659:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 400 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3659:

AAAAGAATGG TAAGTTGAAT AAAGTATTGA AATCAATTGC CAATATCTTT ATACCGTIGA 60
 20 TTCTCTGhATT TATTGGAGCT GGATTAAATG GTGGTATTGC AGCAGTACTG AGTAACTTAA 120
 TGGTGCAGG CTATATTCCA GGTGCTTGGG TTACGCAACT TATAACAGTA TTTAATGTCA 180
 TTAAGACGG TATGTTAGCA TACTTAGCTA TTTTCACTGG TATTAATGCG GCTAAAGAAT 240
 25 TTGGTGCAG ACCAGGACTT GGTGGCGTGA TTGGTGGTAC AACGTTATTA ACGGTTATTG 300
 CTGGTAAAAA TATTTTAATG AATGCTCTCA CTGAGAACC ATTGCAACCT GGACAAGTG 360
 GGATTATTGG CGTTATTGTT CCGTTTGGAA TTTAAGTAAT 400

(2) INFORMATION FOR SEQ ID NO: 3660:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 400 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3660:

CTGAGCTAAT GGCTCTTCCA TGGTGCCGGC CAGAGGACTT GAACCCCCAA CCTACTGATT 60
 ACAAGTCAGT TGCTCTACCA ATTGAGCTAG GCCGGCAATA TGTAAGAATA AATGGTGGAG 120
 45 AATGACGGGT TCGAACCGCC GACCTCTGCT TTGTAAGGCA GATGCTCTCC CAGCTGAGCT 180
 AATTCTCCGA TTTAAAACTG CCTGGCAACG TTCTACTCTA GCGGAACGTA AGTTCGGACT 240
 ACCATGACAG CTAAGGAGCT TAACTCTGTT GTTCGGCATG GGAACAGAGT TGACCTCCTT 300
 50 GCTATATGCA CCAGACATAT GAATGTAATT TATACATTCA AAACCTAGATA GTAAGTAAAA 360
 GTGATTTTGG TTTGCAAAA CATTTATTTT GGATTAAGTC 400